A THESIS PROPOSAL SUBMITTED TO: ADDIS ABABA UNIVERSITY SCHOOL OF GRADUATE STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE MASTER OF DEGREE IN ACCOUNTING AND FINANCE.

THE CHALLENGES AND OPPORTUNITIES OF ADOPTING CRYPTOCURRENCY IN ETHIOPIA.

BY ZEKARIAS KASAHUN

Addis Ababa, Ethiopia

JUN, E2025

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ADVISOR; Kelifa Srmolo (PhD)

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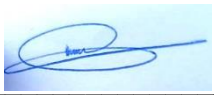
DECLARATION

I, the undersigned, herewith declare that the work contained in this thesis, titled "The challenge and opportunities of adopting cryptocurrency in Ethiopia," is my own original work and has not Previously been submitted in whole or in part at any university for a degree.

Name: Zekarias Kasahun Signature:  Date: _____

THESIS APPROVAL

This is a certification that the thesis written by Zekarias Kasahun, entitled " the challenges and opportunities of adopting cryptocurrency in Ethiopia." which was submitted in partial fulfillment of the requirements for the degree of Master of Accounting and Finance , complies with university policies and meets recognized standards for originality and quality.

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ii

ENDORSEMENT

This thesis has been submitted to Addis Ababa university school of graduate studies for examination with my approval as a university advisor.

_____ _____

Advisor Signature

Addis Ababa University Addis Ababa Ethiopia Nov, 2025

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ABBREVIATION AND ACRONYMS

ANOVA: Analysis of Variance

CIA: Central Intelligence Agency

C-TAM-TPB: Combined Technology Acceptance Model and Theory of Planned Behavior

DFS: Digital Financial Service

IDT: Innovation Diffusion Theory

MPCU: Model of PC Utilization

NBE: National Bank of Ethiopia

PK: Perceived Knowledge

PE: Performance Expectancy

SI: Social Influence

PV: Price Value

EE: Effort Expectancy

PR: Perceived Risk

CA Cryptocurrency adoption

TAM: Technology Acceptance Model

UTAUT: Unified Theory of Acceptance and Use of Technology

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURE

ABSTRACT

Crypto currencies have emerged as a revolutionary financial innovation, offering both significant challenges and opportunities for economies worldwide. This research explores the adoption of crypto currency in Ethiopia, a country with a burgeoning digital landscape and a rapidly evolving financial sector.This research focuses on the challenges and opportunities associated with the adoption of cryptocurrency in Ethiopia, where digital finance is new to the country's landscape. Very few studies have explored the cryptocurrency ecosystem in Ethiopia and this research is guided by an extended Unified Theory of Acceptance and Use of Technology known as UTUT2. The key variables focused on in our model are performance expectancy, effort expectancy, social influence, facilitating conditions, price value, perceived knowledge, and perceived risk. A mixed-methods approach was employed, with the first half of the data collected as quantitative responses from a structured survey from 201 respondents located in Addis Ababa and then fielding qualitative insights within interviews from professionals working in finance, national and local government and technology related professions.The findings show there is increased awareness of cryptocurrency use (especially with the younger generation; tech savvy) and there are limited adoption behaviours due to several challenges. The main challenges sustaining cryptocurrency adoption are: poor internet infrastructure, inconsistent power supply, limited digital literacy, inefficient cyber security systems and lack of regulatory infrastructure. Additionally, the current action where the National Bank of Ethiopia has placed a "ban" on cryptocurrency is an institutional challenge to overcoming adoption behaviours. Challenges aside, there are opportunities in the Ethiopian environment. Awareness about digital economy solutions is increasing, the rate of mobile phone ownership is high, there is a desire amongst youth to explore alternatives to banking and Bitcoin mining, and the potential to innovate with blockchain technology and unnamed digital financial services solutions that could benefit developing economies. Ethiopia could be seen as a country with multiple crypto/digital solutions and potential for adoption and growth.Quantitative analysis confirmed that adoption behaviours were influenced by effort expectancy, performance expectancy, perceived knowledge and perceived risk. Based on the findings and outcomes of the study, recommendations are made for the use of targeted public awareness campaigns, investments in digital infrastructure, increased cybersecurity solutions, and a balanced regulatory framework to govern cryptocurrency use.

Kay Word: *cryptocurrency blockchain utaut2 model digital currency financial technology.*

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the Study

A cryptocurrency is a digital or virtual currency that uses cryptography for security. A cryptocurrency is difficult to counterfeit because of this security feature. A defining feature of a cryptocurrency and arguably its most endearing allure is its organic nature. It is not issued by any central authority rendering it theoretically immune to government interference or manipulation. It is designed from the ground up to take advantage of the internet and how it works. Instead of relying on traditional financial institutions that verify and guarantee your transactions, cryptocurrency transactions are verified by the user's computers logged into the currency's network. Since the currency is protected and encrypted, it becomes impossible to increase the money supply over a predefined algorithmic rate

The 2008 financial crisis in the world led to a lot of skepticism regarding the traditional banking institutions as well as governments. It was at this juncture, in January 2009 to be precise, that an individual or group of people by the name Satoshi Nakamoto released a white paper in which they questioned the state's centralized power over money, and that a new alternative system will be built where people will have the ability to carry out peer-to-peer transactions without having to use any middleman. Thus, on the 9th of January 2009, the financial market saw the launch of a new money-making innovation, Bitcoin, when Nakamoto released the first open-source Bitcoin client Likos and Hicks, (2022).

In its initial phase, Bitcoin was obscure and as it had not yet become popular, it also did not have much functional purpose as in real life very few people were willing to accept it as payment. But due to its unique character and supposed benefits over the traditional payment systems, its usage became immediate and over the last decade, Bitcoin saw the growth in both its use as well as the number of merchants who accept it as a form of payment like Microsoft, AT&T and Shopify Murphy et al., (2015).This evolution provides evidence on how Bitcoin transitioned from a mysterious digital currency to a commonly accepted financial tool, establishing firmly its position in the world economy. Crypto currencies are also gaining interest from the sporting

industry in particular from football since some football clubs are now accepting crypto currencies.

In 2019, it was announced that Sport Lisbon Benfica, a highly successful football club in Portugal, was shortly going to accept crypto currencies as payment that will allow fans to purchase match tickets and memorabilia with the use of crypto currencies Aguilar (2019). Also, football clubs have now been partnering with several crypto currency firms, and football club supporters can now sponsor their clubs by purchasing block chain-based tokens representing a specific club. This journey which the football clubs are currently undertaking by coming in partnership with these companies was sparked by the recent COVID-19 pandemic, and the subsequent lockdowns & restrictions that did not permit the fans to travel to the stadiums, and thereby the loss of revenues to such football clubs. Munster (2021).

Through various services offered by various cryptocurrency companies including crypto currencies exchanges, banks, Automated Teller Machines (ATMs), wallets, and payment gateways, users are now able to exchange fiat currencies for cryptocurrencies and vice versa, sell and purchase crypto currencies, store crypto currencies, and most importantly, purchase goods and services through the use of crypto currencies. Apart from their use as a form of payment, crypto currencies have also been very attractive in recent times to investors and traders who are trading in and holding crypto currencies in their investment portfolios. This may be due to the massive rise in the value of Bitcoin and some other crypto currencies such as Ethereum and Litecoin Ciaian et al., (2016). December 2024 registered Bitcoin reaching its all-time high (ATH) of over $108000 since it started the year at slightly under $50000while its second most commonly traded crypto currency, BNB had its price increase from $287 to an ATH of approximately $792

As of December 2024, CoinMarketCap estimates that global capitalization on the crypto market stands at approximately $3.35 trillion. To give this some perspective, the combined total market capitalization of all the crypto currencies is larger than some of the largest corporations in the world, including Alphabet Google, Amazon, Tesla, and Facebook.

In the global asset scenario, Bitcoin is the seventh most valuable asset, behind the large companies and commodities. This means that nowadays people are far more curious about the

prospects of crypto currencies and as a result are now investing, stacking, and using them for their portfolios Petukhina et al., (2021). This may also imply that the crypto currencies and the underlying technology are here to stay long term, and that it is not a 'fashion' or a 'burst bubble' like it is perceived by some of the skeptics. The Chief Executive of Morgan Stanley, James Gorman (2021), in an interview with CNBC recently, stated that Bitcoin "Is not a fad and it will not go away". Morgan Stanley, in March 2021, was the first US bank to offer its wealth managing customers and investors' exposure to Bitcoin funds Son, (2021). Now in recent times we have even seen the trend of institutional firms shifting their cash treasuries to crypto currencies as we have seen companies like Tesla who have moved more than one billion dollars worth of Bitcoin, and some others like Micro Strategy and Square have also hopped onto the bandwagon.

This could be the reason that crypto currencies' worth has increased lately, and it could also mean that after ten years, institutional companies are accepting crypto currencies as a 'store of value' now The Economic Times, (2021).

1.2. Notcoin: From "A Tab Tab " To Crypto Currency Awareness In Ethiopia

In Ethiopia, the journey of Notcoin could be likened to a popular "a tab tab" game, where it starts as a curiosity—something new, exciting, and perhaps puzzling—but soon captivates the public's attention and opens up avenues for broader knowledge. The rise of Notcoin began with a small spark—perhaps as a novelty or gimmick in the financial world. At first, it seemed like just another fleeting trend, as people in Ethiopia might have viewed it like an oddity or a speculative venture, much like how people once viewed crypto currencies in other parts of the world.

However, as the Notcoin movement grew, it quickly evolved beyond just a passing fad. The game of speculation turned into something more serious as people began to recognize the potential of crypto currencies and the digital economy. It wasn’t long before Notcoin caught the attention of the Ethiopian people, from students to business owners, and even to government officials. The curiosity that surrounded Notcoin started to snowball into an awakening about digital currencies, their benefits, and how they could transform Ethiopia’s financial system.

As the game of Notcoin continued, people began to realize that crypto currency could be more than just an online buzzword. Notcoin, in particular, became a symbol of financial inclusion and

an opportunity for Ethiopians to embrace new technology. The concept of a centralized digital currency backed by the government was fascinating. It allowed the population to access a secure, transparent, and efficient system of payment, and gradually, the knowledge gap about how crypto currencies work began to close.

Initially, many Ethiopians might have been wary of anything that seemed too foreign or complex, but Notcoin helped demystify crypto currency. It provided an opportunity for digital literacy to grow among a population that had not been exposed to such technology. Through workshops, online platforms, and community engagement, people began to understand how crypto currencies function, how they could use them, and the future possibilities for digital transactions and trade.

Notcoin not only opened the door for financial inclusion but also gave Ethiopians a sense of empowerment. As more individuals started to engage with the currency—whether by using it to send remittances, pay for goods, or invest in the future—it sparked conversations about the evolution of money and the way the world is moving toward digital solutions. Young people, in particular, began to see crypto currency as an exciting new frontier—a way to be part of a global financial shift.

In essence, Notcoin transitioned from just a game of curiosity (the "a tab tab " phase) to an educational movement. It bridged the gap between traditional finance and the rapidly evolving world of digital currencies. As a result, Ethiopians were not only participating in the cryptocurrency ecosystem but also becoming informed advocates for a new, more inclusive, and more innovative financial system. Notcoin had truly sparked a revolution in how people understood money, wealth, and the future of finance in Ethiopia.

This also means that Notcoin’s rise can stimulate discussions around regulation, digital infrastructure, and education, further embedding cryptocurrency knowledge in the fabric of Ethiopian society.

1.3. Statement of the Problem

Bitcoin and the other crypto currencies were initially created with the aim of availing people with a source of making financial payments that does not involve any third-party financial institutions. There has also been debate regarding whether the crypto currencies could be utilized

as money Ammous.(2018). The crypto currencies offer several benefits such as low transaction costs, transaction speed, no purchase or withdrawal restrictions and the advantage that anyone can use crypto currencies, as opposed to opening a bank account that requires documentation and paperwork for one to be in a position to conduct banking transactions Arora. (2022). But today, there is a gray area regarding the crypto currencies since they have some risks and uncertainties such as volatility, the issue of anonymity, regulatory uncertainty, and the fact that they are not issued by central banks and do not have a legal tender meaning that they are backed by the government. Thus, today, cryptocurrencies are viewed more as speculative investment than being welcomed as a fiat currency.

Also, due to the fact that cryptocurrencies are highly anonymous in nature, hitherto they were linked with a number of crime syndicates such as the notorious Silk Road website that was an online black market trading illicit goods ranging from drugs to stolen credit cards and hire guns before being shut down by the US government in 2013 Hern, (2020).

Moreover, there have been some occurrences in the past where crypto currency exchanges have been hacked with the implication that some people had their money stolen. Also, as crypto currencies are still in the development process and that they are still quite a new thing, most individuals are unaware of these crypto currencies, and hence are not inclined to embrace such technologies as they do not know how such crypto currencies operate. Selling and purchasing Bitcoin and other Crypto currency remains mostly an unregulated activity in Ethiopia. Unlike the majority of Ethiopia's African counterparts the National Bank of Ethiopia totally disregards the existence of this new form of money. Emurgo Africa, (2025).

In June 2022, The National Bank of Ethiopia (NBE) released a notice announcing that it is illegal to trade with crypto currencies, such as Bitcoin, in Ethiopia. The NBE explicitly stated that the Ethiopian Birr is still the only legal tender for all financial transactions in Ethiopia. The central bank warned that the crypto currencies were being used for illegal financial transactions and money laundering and urged people not to engage in such transactions and report any criminal activity related to them to the authorities. Subsequently, the Information Network Security Administration of Ethiopia, the country's cyber security agency, demanded that crypto currency service providers register with the agency. The move was aimed at regulating crypto activities, including mining and transfer, and monitoring digital asset trade more effectively. INSA

threatened lawsuits against those that would not comply with the registration requirement. Emurgo Africa, (2025).

There have been no official statements up to December 2024 that signal a change from the NBE's stand on the prohibition of transactions involving crypto currency. Crypto currency use remains prohibited, and the Ethiopian Birr remains the only accepted legal currency in the country for financial transactions.

Hence, this study helps quantify to what extent the public can overcome the hurdles in using such currencies as investment vehicle and or payment method where feasible.

Also the study has the goal to illustrate the importance and inevitability of Crypto currency since the notion of financial & market globalization has long been prevalent.

Also, the study puts into the limelight the challenges and opportunities associated with the level of internet literacy, cyber security, infrastructure ability, efficiency and governmental policy that could affect the adoption of the digital money. The study is also expected to raise society awareness about guarding oneself and being cautious of the risk involved in using such digital money.

1.4 Research Question

I. What is the awareness of crypto currency in Ethiopia?
II. What are the challenges in adopting crypto currency in Ethiopia?
III. How do existing platforms align with Ethiopia’s regulatory policies on crypto currency adaptation and usage?

1.4.1. Research Hypothesis

H1; Perceived knowledge has significant influence on adoption of cryptocurrency in Ethiopia.

H2; Performance expectancy has significant influence on adoption of cryptocurrency in Ethiopia.

H3; Social influence has a significant influence on adoption of cryptocurrency in Ethiopia.

H4; Price value has a significant influence on adoption of cryptocurrency in Ethiopia.

H5; Effort expectancy has a significant influence on adoption of cryptocurrency in Ethiopia.

H6; Facilitating conditions has significant influence on adoption of cryptocurrency in Ethiopia.

H7; Perceived risk has significant influence on adoption of cryptocurrency in Ethiopia.

1.5. Objective of the Study

1.5.1. General Objectives

The general objective of the study was to assess the challenge and opportunities of adaptation cryptocurrency in Ethiopia..

1.5.2 Specific Objectives

The Specific Objectives Of The Study Are To:

- Assessing the level of awareness of crypto currency in Ethiopia
- To identify challenges in adopting Crypto currency in Ehiopia
- Analyze the regulatory uncertainty in adopting crypto currency in Ethiopia

1.6. Description of the Study Area

The study was conducted in Addis Ababa, the capital city of Ethiopia, which serves as the political, economic, and cultural hub of the country. With a population exceeding 5 million people, Addis Ababa represents a significant portion of Ethiopia's urban population. The city is home to a diverse range of individuals, businesses, and governmental institutions, making it an ideal location for exploring the adoption and awareness of crypto currency.

As the capital city, Addis Ababa is a center of economic activity and innovation. The city has seen rapid technological advancements, and while internet penetration remains relatively low in rural areas of the country, urban centers like Addis Ababa are experiencing faster adoption of digital technologies, including the growing interest in crypto currency. Given the increasing urbanization and digital literacy in the capital, Addis Ababa provides a representative sample for studying the challenges and opportunities of crypto currency adoption in Ethiopia.

In Addis Ababa, a growing number of businesses, tech-savvy individuals, and financial institutions have begun exploring the potential uses of crypto currencies, though adoption is still

in its early stages. The city's role in Ethiopia's broader economic and financial landscape means that the findings from this study could have significant implications for other urban areas in Ethiopia, as well as for national policy.

1.7. Significance of the Study

This study we find to be of great importance because it looks at the issues and possibilities for Ethiopian people with respect to use of cryptocurrency. We are trying to close the gap in terms of what we know how crypto can do for the country's systems as well as its total financial infrastructure. Although it is a wide held belief around the world of how integral crypto is, Ethiopia does not have a great deal of that which is practical knowledge and that is the reason this research is very much so needed.

This study's results were put at disposal many interested parties. We were present to many future researchers, consultants, and academics as well as programmers a great base from which to build off of. Also it will serve as input. This input is for experts and scholars which in turn will greatly push and improve the use of crypto within the country.

This study will help policy makers use crypto and improve related policies. Very important of our results will help government bodies as well as many stakeholders to better put into perspective the main issues as well as the great opportunities related to crypto adoption which in turn will enable them to make much better informed decisions.

This research will fill in a knowledge void and will in turn spark more study of crypto currency's role in Ethiopia's economy. This will help us to better understand this important tech and how to put it to use on a national scale.

1.8. Scope of the Study

This study explores the challenges and opportunities of Ethiopian crypto currency adoption. This study assesses Ethiopian financial sector crypto currency integration readiness.

This research explores how crypto currency can improve the nation's finances and increase innovation and economic growth. The study will also explore global best practices and assess how well they can be used in Ethiopia. It will identify key barriers, such as limited awareness among many people, a lack of deep understanding in several areas and meaningful regulatory constraints.

This study concentrates on Ethiopia, examining the roles of banks, policymakers, technology firms and crypto currency users. The study period were cover many recent developments in the global as well as the local crypto currency landscape to guarantee the relevance along with the applicability of the findings.

This study concentrates on crypto currency adoption challenges and opportunities.It will really help policymakers and financial institutions, providing important advice for changing to new alternative currencies plus managing the risks involved.

Finally, this research will c ontribute to filling the existing literature gap and inspire further academic inquiry into crypto currency and its potential for economic development in Ethiopia. By doing so, it will pave the way for a better understanding and integration of this transformative technology as a nation.

1.9. Limitation of the Study

This study offers insights into crypto currency use in Ethiopia, but it has limitations. A key limitation is the lack of detailed data on crypto currency adoption in the country, as the technology is still being explored and put into action. This can affect the analysis and make it hard to compare with more developed economies.

Additionally, the study depends on secondary data and primary data from interviews or surveys, which might be shaped by how much the respondents know about crypto currency. Some stakeholders may lack awareness and technical skills, leading to skewed or incomplete answers.

Regulatory and legal uncertainties also limit the study. The government's view on crypto currency is still changing, making it hard to foresee the effects of regulatory shifts on adoption and implementation. Moreover, the study mainly looks at financial institutions like banks, ignoring other areas such as retail or international trade that could also gain from adopting crypto currency.

Finally, since crypto currency and block chain technology change rapidly, the study's findings might no longer be relevant as technologies and regulations progress. Even with these limitations, the study aims to provide a basic understanding of cryptocurrencies potential in Ethiopia and its implications.

CHAPTER TWO

2. LITERATURE REVIEW

INTRODUCTION

Crypto currency adoption in Ethiopia has been an emerging topic of interest, given its potential to revolutionize financial systems and promote financial inclusion. However this chapter reveals significant challenges and promising opportunities.

2.1. Theoretical Review

The adoption of cryptocurrency in Ethiopia presents both significant opportunities and challenges, which can be better understood using theoretical frameworks such as the Technology Acceptance Model (TAM) and the Diffusion of Innovation Theory. These frameworks offer a deeper understanding of how users in Ethiopia might engage with cryptocurrency, considering the cultural, technological, and regulatory context of the country. This section will elaborate on how these theories apply to the Ethiopian context and explore the challenges and opportunities they highlight. (Al-Tarawneh 2019).

2.1.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), first proposed by Davis, (1989), is a widely recognized framework that explains how individuals come to accept and use technology. The model suggests that perceived usefulness (the degree to which a person believes that using a technology will improve their job performance or daily life) and perceived ease of use (the degree to which a person believes that using the technology will be free of effort) are the two main factors that influence technology adoption. These factors can be further influenced by external variables like individual differences (age, education), social influence, and facilitating conditions (infrastructure, availability of resources). Al-Tarawneh,(2019).

In the context of Ethiopia, low technological literacy and limited access to the internet are crucial factors that affect perceived ease of use. According to the International Telecommunication Union (ITU), internet penetration in Ethiopia is still below the African average, and many Ethiopians especially in rural areas do not have the skills to interact with digital platforms. This lack of digital literacy could make cryptocurrency platforms, which are primarily digital, appear

complex or inaccessible to the average person. As a result, many Ethiopians may be hesitant to adopt cryptocurrency, as the technology may seem too difficult to understand or use.

2.1.2. Diffusion of Innovation Theory (DOI)

The Diffusion of Innovation Theory Rogers, (2003) helps explain how new technologies spread across a society. According to Rogers, innovations are adopted in a predictable pattern, moving through five adopter categories: innovators, early adopters, early majority, late majority, and laggards. These categories reflect how individuals or groups adopt new ideas over time, with innovators and early adopters being the first to embrace new technologies, and laggards being the last. (Al-Tarawneh 2019).

In Ethiopia, the adoption curve for cryptocurrency is likely to follow a similar trajectory. The early adopters of cryptocurrency in Ethiopia are likely to be the younger, more tech-savvy individuals, often urban dwellers who have access to the internet and are familiar with digital technologies. However, a large portion of the Ethiopian population, especially in rural areas, will likely fall into the late majority or laggards categories. These individuals may be resistant to adopting cryptocurrency due to cultural factors, lack of understanding, or simply because they are unfamiliar with the technology.

Both TAM and the Diffusion of Innovation Theory underline the importance of addressing psychological and structural barriers to cryptocurrency adoption in Ethiopia.

Psychological Barriers: A key psychological challenge is lack of trust in digital currencies. Cryptocurrency are often associated with volatility and speculation, which may make them seem risky or unstable. In addition, many Ethiopians may be unfamiliar with digital currencies, and some may perceive them as "virtual money" that is not backed by a physical asset or central authority. Cultural norms around money and finance, including a preference for physical currency and distrust of digital alternatives, can reinforce this skepticism.

Structural Barriers: Structural barriers are those related to the country’s infrastructure and legal system. The lack of reliable internet access, particularly in rural areas, limits access to cryptocurrency platforms. Poor mobile penetration in some parts of the country further exacerbates this issue. Furthermore, without a clear legal framework governing the use of crypto

currencies, businesses and individuals may be reluctant to engage with them. Regulatory uncertainty adds risk, especially when the government has not fully clarified its stance on cryptocurrency use.

To overcome these barriers, it is essential for the Ethiopian government to create a clear and supportive regulatory environment for cryptocurrencies, alongside initiatives aimed at improving digital literacy and internet infrastructure.

2.1.3. The Unified Theory of Acceptance and Use of Technology (UTAUT)

Researchers which have seen across many fields have put forth many models to try and determine how individuals adopt and use new technologies. In this respect the most used and in depth framework is the Unified Theory of Acceptance and Use of Technology (UTAUT) put forth by Venkatesh, Morris, Davis, and Davis (2003). This model was developed to integrate and put forward key concepts from earlier technology acceptance theories which include the Technology Acceptance Model (TAM) and the Theory of Planned Behavior (TPB). UTAUT is put around four main determinants: performance expectancy, effort expectancy, social influence, and facilitating conditions. Also it has in it four moderate variables – gender, age, experience, and voluntariness of use – to report out on what is different in terms of adoption between users. As per the model performance expectancy, effort expectancy, and social influence mainly play a role in an individual's intention to try out a tech, while facilitating conditions play into actual use behavior Venkatesh et al.(2003); Dwivedi et al.(2017).

This model is very much so relevant to the Ethiopian context in which the adoption of crypto technologies is still very much in the early stages and is at the effect of many behavioral, social and infrastructural factors. Using UTAUT in the study of crypto adoption in Ethiopia allows for a structured analysis of how perceived value (for instance in terms of financial inclusion) ease of use (for instance in terms of understanding crypto platforms) peer influence and resource availability (for instance in terms of internet access, digital wallets) play into user behavior. Also given the low digital literacy and regulatory uncertainty in Ethiopia these elements put forth by the model give very important insight into what issues we see which in turn present both challenges and opportunities that shape crypto acceptance.For example, while urban users may demonstrate high performance expectancy due to crypto's potential to bypass traditional

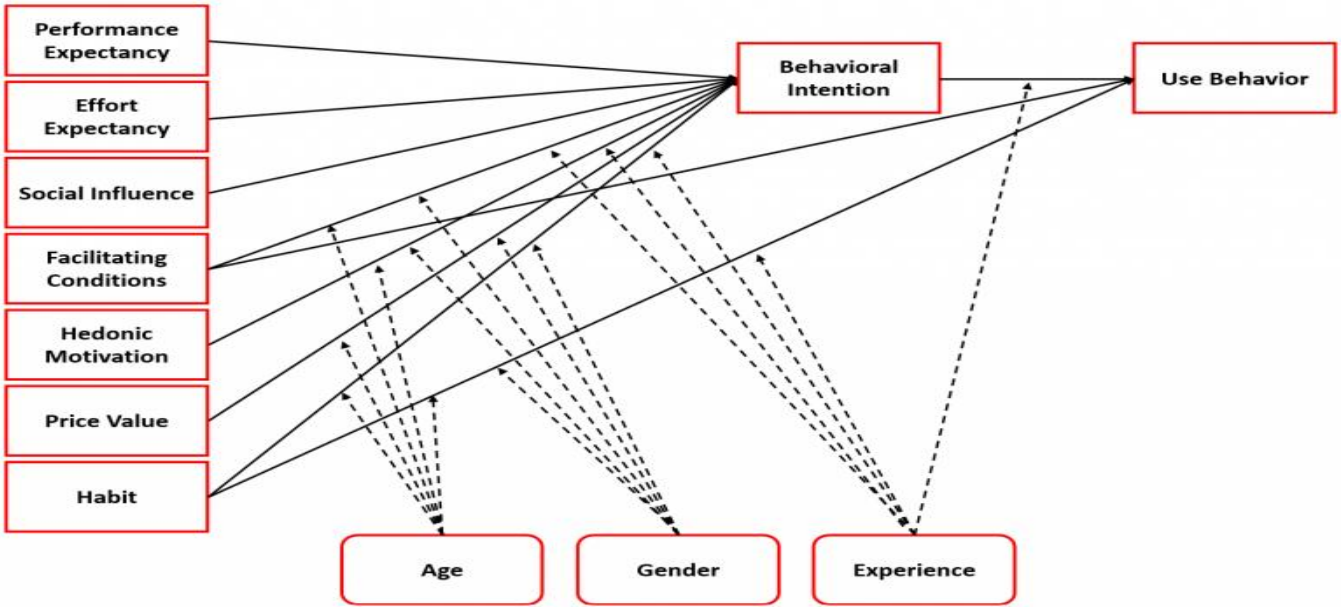
financial systems, users in rural areas may be limited by poor infrastructure and lack of facilitating conditions. Thus, the UTAUT framework provides a robust lens for assessing cryptocurrency adoption dynamics in Ethiopia's unique socioeconomic landscape. Venkatesh et al.(2003); Dwivedi et al.(2017).

2.1.4. Extended Unified Theory of Acceptance and Use of Technology (UTAUT2)

About a decade after the original UTAUT model was put forth Venkatesh et al. (2012) put out an updated version which they designed for consumer centered settings. This they did by way of adding to the model three new elements hedonic motivation, price value, and habit which they put forward to go along with the then performance expectancy, effort expectancy, social influence, and facilitating conditions.

This theoretical model we see play out in the focus of our study which is to look at the issues and possibilities of crypto currency adoption in Ethiopia. We put into play in these study key UTAUT2 variables which include perceived knowledge (which plays to performance and effort expectancy), social influence, facilitating conditions, price value, effort expectancy, and perceived risk which we use to see how Ethiopians do with respect to perceiving, getting to, and using crypto platforms. In a country which has low awareness, infrastructure and regulatory clarity – UTAUT2 does very well to put forth a framework which looks at how these issues play into the user's intention and behavior related to digital currencies. Thus we chose this model for its wide reach and predictive value in the analysis of technology adoption in emerging markets like Ethiopia.

Figure 2. 1 Extended Unified Theory of Acceptance and Use of Technology Model



SOURCE ;UTAUT 2 (Venkatesh et al., 2012)

2.2. Cryptocurrency

A cryptocurrency is a digital or virtual currency that uses cryptography for security. A cryptocurrency is difficult to counterfeit because of this security feature. A defining feature of a cryptocurrency and arguably its most endearing allure is its organic nature. It is not issued by any central authority rendering it theoretically immune to government interference or manipulation. It is designed from the ground up to take advantage of the internet and how it works. Instead of relying on traditional financial institutions that verify and guarantee your transactions, cryptocurrency transactions are verified by the user's computers logged into the currency's network. Since the currency is protected and encrypted, it becomes impossible to increase the money supply over a predefined algorithmic rate. One cryptocurrency, in particular, has entered the public lexicon as the go-to digital asset: Bitcoin often is regarded as father of crypto currencies and all other crypto currencies are referred as altcoins. Since 2009, the finance world has been watching the crackerjack rise of Bitcoin with a combination of fascination and, in many cases severe skepticism. Characteristics of Bitcoin make it fundamentally different from a fiat currency which is backed by the full faith and credit of its government. Fiat currency issuance is

a highly centralized activity supervised by a nation's central bank. On the other hand, the value of a Bitcoin is wholly dependent on what investors are willing to pay for it at a point in time. It uses peer-to-peer blockchain network that is chronologically arranged chain of blocks where each block has a list of transactions information where all members are equal.

2.3 Understanding Blockchain

Blockchain is the underlying technology and public ledger of all Bitcoin transactions that to this date have been executed. The Blockchain entails three important concepts which are blocks, nodes, and miners. With each transaction carried out, this has to be recorded and as a result, miners add new blocks to record each transaction Swan. (2015).

The process of mining blocks is carried out through the use of cryptographic and algorithmic methods. Decentralization is an integral part of the Blockchain technology, and subsequently nodes serve as an important feature in the Blockchain. Each of these nodes include a copy of the Blockchain and the network must algorithmically approve any newly mined block for the chain to be updated, trusted, and verified Elrond, (2019).

The Blockchain technology is perceived to be very transparent since every action recorded in the ledger can easily be checked and viewed. Swan. (2015) labels Blockchain as a "trustless" proof mechanism of transactions in the network.

The Blockchain forms part of the Distribution Ledger Technology (DLT) and this is regarded as an innovative approach to record and share data across multiple ledgers. Although the Blockchain and DLT are often perceived to be the same, it is not the case, and it is also important to point out that not all DLTs utilize Blockchain technology aand vice-versa.

The two can be used together to record data, through the creation of new "blocks of data", which is then shared across the network in an encrypted format so that transaction details are not made public. Data has to be validated through a pre-defined algorithmic method known as "consensus mechanism", and it is after this stage that new blocks of data are added to the ledger Natarajan et al.(2017).

A DLT-based infrastructure features two key characteristics. The first characteristic is that it has the ability to "store, record, and exchange" data on several decentralized counterparties spread

globally without the need of a central party i.e., peer-to-peer and without the need of trust between the counterparties Natarajan et al. (2017). The second characteristic is that the DLT prevents the issue of "double spend" from happening, meaning that the same asset or transaction cannot be sent to multiple counterparties. This is accomplished by the process of mining which consists of mathematical cryptographic puzzles that verify each transaction before adding them to the network Van Oerle et al, (2016)

2.4. Cryptocurrency From Global View

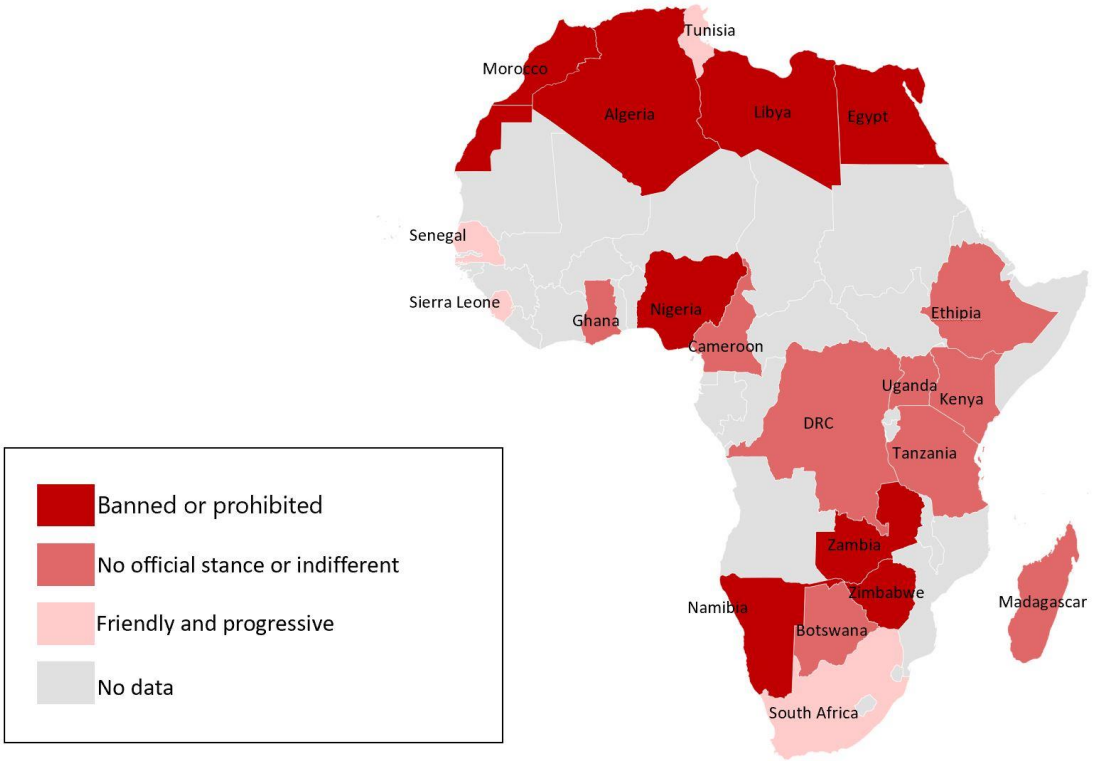
In countries such as Sweden, Mexico and Isle of Man, their government has promoted the use of crypto currency as mode of payment for transactions carried out alongside their national currency. The government of Antigua allows the funding of charities and national projects through using Cryptocurrency. According to Cryptocurrency trading platform, information show that the Cryptocurrency user has increased by nearly 150 percent from the year of 2018 up to the year 2020, the increase in users is caused by interested users who trade using Cryptocurrency thus contributing to the rise in Cryptocurrency accounts. And here it can be said that the widening number of users shows the idea and popularity of Cryptocurrency is paving its way to peoples mind when it comes to alternative currency. Reynor de Best Feb.(2021). According to Statistic global consumer survey (2020) consumers in Asia, South America and Africa are owners of one of Cryptocurrency such as Bitcoin by the year 2020, this shows that the acceptance level and attitude towards Cryptocurrency has changed positively and increased in the number of owners globally. Reynor de Best Feb.(2021).

2.5. Cryptocurrency In Africa

Africa does not have a very big market for Cryptocurrency but it is growing despite the concerns people have and tough regulations in different countries. According to BitcoinAfrica.io, the top 5 African countries whose communities are adopting Bitcoin are South Africa, Nigeria, Zimbabwe, Kenya, and Ghana. They have the most demand for digital currency as well as the most active local cryptocurrency communities. In addition, according to bitcoin.com South Africa, Nigeria and Kenya appear in the top 10 countries by Cryptocurrency Adoption worldwide. Does that reflect how African governments are adopting this new technology? Nigeria has one of the most dynamic peer-to-peer Bitcoin trading markets in the world, but so far the country has banned

Cryptocurrency and warned its citizens that Bitcoin investments had no legal cover. On January 12, 2017, the CBN (Central Bank of Nigeria) warned all the Banks and Financial institutions in Nigeria to never use, hold, trade, or transact any virtual currency. On the 5th of February 2021, the CBN has ordered banks across the country to close the accounts of anyone who deals in cryptocurrency. Not only Nigeria but also Morocco, Algeria, Libya, Egypt, Zambia, Zimbabwe, and Namibia have banned the use of cryptocurrency. In Kenya, the government is neither receptive nor prohibiting cryptocurrency; however, they also warn their citizens that it is not legal tender, so they do not provide any protection for any failure that can appear in the cryptocurrency businesses. In South Africa, there are no specific laws or regulations that address the use of virtual currencies; however, they have made a Crypto Assets Regulatory Working Group that is reviewing the country's position on crypto assets.

Figure2.2 Current regulation situation of Cryptocurrency in Africa



SOURCE; Emurgo Africa, (2025).

2.6. Cryptocurrency In Ethiopia

In June 2022, Ethiopia's central bank, the National Bank of Ethiopia (NBE) issued a statement declaring cryptocurrency trading to be illegal. The NBE said it would take “legal measures” against anyone found to be using crypto currencies for transactions in the country. “Birr is the only legal currency in Ethiopia and all financial transactions shall be effected through it,” the central bank warned in a statement.

The NBE cited concerns about financial instability, money laundering, and the lack of regulation surrounding crypto assets. This stance echoed the anxieties of many central banks in Africa, worried about crypto currencies' potential to undermine national currencies and centralized financial control.

However, in a surprising move in August 2022, the Ethiopian government signaled a change in course. The Information Network Security Agency (INSA) issued a directive requiring all cryptocurrency operators to register with them. “There is interest among individuals and entities in providing crypto services including mining and transfer,” INSA said, warning that crypto players who fail to register would be prosecuted. This marked a shift from an outright ban to a more nuanced approach, aiming to regulate the cryptocurrency industry while protecting citizens from potential risks. Emurgo Africa, (2025).

The reasons behind this shift can be attributed to the continued growth of the global crypto market, suggesting it was here to stay. The Ethiopian government also recognized the potential benefits of crypto currencies like facilitating cross-border payments and revolutionizing digital identity. Currently, INSA and other entities are in the process of formulating guidelines aimed at providing comprehensive supervision over the operations, economic ramifications, and environmental implications of the crypto sector. Emurgo Africa, (2025).

Although Ethiopia has not yet enacted laws allowing for the use of crypto currencies, there is a notable increase in crypto adoption, as individuals engaged in crypto activities are actively broadening their endeavors within the nation. There are over 1.8 million crypto users in Ethiopia. Interest is burgeoning both within the private sector and in government initiatives aimed at crafting a regulatory framework to ensure stability and consumer protection. Developers, entrepreneurs, and government officials alike are increasingly curious about the foundational

technologies behind Bitcoin and their potential applications across various sectors beyond finance. Emurgo Africa, (2025).

Ethiopia recognizes the potential of the underlying technology – blockchain. Blockchain offers a secure and transparent way to record transactions, potentially revolutionizing sectors like supply chain management and land registration. This recognition has fueled interest in exploring blockchain applications without necessarily embracing crypto currencies themselves.

Fraud in education has long been a pervasive issue in Ethiopia, undermining the integrity of academic qualifications and eroding trust in the education system. Fake diplomas, forged transcripts, and fraudulent certifications have plagued the country's educational landscape, posing significant challenges for employers, academic institutions, and students alike. To tame this trend, in 2021, the government signed a partnership with research and engineering firm Input Output Global (IOG) to implement a digital student identity program under the Cardano blockchain across more than 3,000 schools.

In the deal between IOG and the Ethiopian government, the goal is to create a national database of the country's students' and teachers' credentials using a decentralized digital identity solution. "It felt quite appropriate to deploy the technology in the education sector based on the Prime Minister's comments on these issues," says John O'Connor, the director of African operations at IOG. The project targets a large number of students both in primary and secondary schools. By digitizing educational records and storing them on a blockchain-based platform, Ethiopia aims to eliminate the risk of tampering or falsification, ensuring the authenticity of academic qualifications. This not only helps to safeguard the value of legitimate credentials but also provides employers and academic institutions with a reliable means of verifying the educational background of individuals.

One of the key components of Ethiopia's digital project is the development of a blockchain-based credentialing system that allows educational institutions to issue digital certificates directly to students. These digital credentials are cryptographically signed by the issuing institution, making them tamper-proof and easily verifiable.

Moreover, the use of blockchain technology ensures that educational records are securely stored and accessible only to authorized parties, protecting the privacy and confidentiality of students'

data. This addresses concerns about data breaches and identity theft, which are common in traditional paper-based systems.

The implementation of Ethiopia's digital initiative has already yielded promising results in curbing fraud in education. By digitizing educational records and making them easily verifiable, the country has significantly reduced the prevalence of fake diplomas and forged transcripts. This has bolstered the credibility of Ethiopia's education system and enhanced the value of academic qualifications earned in the country.

Furthermore, Ethiopia's digital project has empowered employers to make more informed hiring decisions by providing them with access to accurate and up-to-date information about job candidates' educational backgrounds. This has helped to improve the overall quality of the workforce and foster economic growth and development in the country.

It is such efforts that contributed to the World Bank’s December approval of a $350 million finance package to support Ethiopia's digital identity drive for 90 million Ethiopians.

The Ethiopian capital Addis Ababa, with its abundant supply of cheap electricity and relatively low operating costs, has emerged as an attractive destination for Bitcoin miners seeking to capitalize on the city's favorable conditions.

Ethiopia possesses approximately 5,200 MW of installed generation capacity, primarily sourced from hydropower, which accounts for about 90% of the total. The remaining 10% is derived from wind and thermal sources. Additionally, Ethiopia is in the final stages of constructing the Grand Ethiopia Renaissance Dam (GERD), anticipated to have an installed capacity of 5,150 MW. This abundance of renewable energy sources has made electricity affordable and abundant, making it an ideal environment for Bitcoin mining, an energy-intensive activity.

The allure of Bitcoin mining lies in its potential for lucrative rewards. Miners who successfully solve complex mathematical puzzles and validate transactions are rewarded with newly minted Bitcoin, providing them with a lucrative source of income.

This financial incentive has attracted a diverse array of participants, ranging from individual hobbyists to large-scale mining operations. Bitcoin mining consumes vast amounts of power, so access to cheap electricity is a critical competitive advantage. The trend has seen a surge in the

past two years, with established mining companies setting up shop in Addis Ababa and individual miners looking to Ethiopia as a more lucrative alternative to traditional mining hubs like China, Kazakhstan, Canada and Russia.

The surge in Bitcoin miners in Addis Ababa, especially from China, hinges on China's ban on crypto trading and mining in 2021 to control financial risks and reduce energy consumption. Bloomberg reports that the Ethiopian Energy Authority has struck power deals with 21 Bitcoin mining companies, 19 of which are Chinese.

Since 2022, Ethiopia has permitted Bitcoin mining mainly because the companies pay in foreign currency for the electricity they consume. During the past decade, the country has strengthened its relations with China. Notably, numerous Chinese firms participated in constructing the $4.8 billion dam, which Bitcoin miners utilize for power.In February, the Ethiopian Government's investment arm, Ethiopian Investment Holdings (EIH), signed a $250 million pact with Honk-Kong-based West Data Group's Center Service PLC to commence Bitcoin mining operations. The agreement also involves the construction of a large data center to manage crypto mining and AI training activities.

According to reports, Ethiopia has earned 55 million dollars from Bitcoin mining deals in the past 10 months.

2.7. Empirical Reviews

Perceived Knowlege (PK)

Researchers have suggested that consumers' knowledge or awareness of developing technologies affects their acceptance of them. Before adopting new items, consumers must be aware of them and understand them, according to Howard and Moore. (1982).

In Nigeria, a developing economy with similar socio-economic characteristics to Ethiopia, perceived knowledge was found to be a key factor in cryptocurrency adoption. Participants who reported higher levels of knowledge regarding cryptocurrency were more likely to trust and use them for financial purposes. Oluwaseun et al.(2020)

Similarly, research in South Africa suggested that knowledge of cryptocurrency significantly impacted its adoption rate. Those who understood how cryptocurrency work were more likely to invest and use them for transactions, highlighting the importance of education in technology adoption. Ali et al.(2021):

Performance Expectancy (PE)

Performance expectancy is defined as the extent to which an individual believes that using the system will enhance his or her productivity and performance Venkatesh et al.(2003). This includes prior definitions of perceived usefulness from TAM, extrinsic motivation from the Motivational Model, job-fit from the Model of PC Utilization, relative advantage from IDT, and outcome expectations from SCT. This is the strongest of the constructs of UTAUT as a precursor to behavioral intention for use, whether it be a voluntary or required situation.

For this study, performance expectancy relates to what cryptocurrency users believe about its valued perception, such as enhanced speed of transaction, affordability, financial inclusion, and returns on investment. If users feel that being able to use cryptocurrency will enhance their ability to perform financial transactions or provide economic value beyond that which can be offered by the banking system, then generally they will be more likely to develop a positive intention to use the technology. Therefore, performance expectancy is critical in determining how perceived value/performance increases intention to adopt crypto technology for use in the Ethiopian marketplace. Venkatesh et al. (2003).

Social Influence (SI)

According to Venkatesh et al. (2003), social influence is the extent to which a person believes that significant others think he or she should utilize the new system. It is the idea that a person's behavior is influenced by how peers or family members feel about using technology. Using innovative technology like mobile banking could make the user feel fashionable and Competent Oliveira, Faria, Thomas, and Popovic, (2014).

The concept is represented by subjective norms from TRA and TAM, social factors from a model of PC utilizations, and image from IDT. Despite having a variety of names, each construct

involves the stated or implied idea that the person's behavior is influenced by their perception of how others will perceive them as a result of using technology.

Study in Nigeria Oluwaseun et al.(2020) investigated the factors influencing cryptocurrency adoption and found that social influence played a significant role. Respondents who observed others, particularly influential figures such as celebrities, entrepreneurs, and social media personalities, using and promoting cryptocurrency were more likely to consider adopting it themselves. This effect was reinforced by peer recommendations and discussions within social networks, which helped build trust and awareness. The study suggests that social influence not only shapes perceptions of cryptocurrency but also serves as a key driver of adoption, particularly in environments where financial innovation is still emerging.

Study in South Africa Ali et al.(2021): Social influence was identified as an important factor in cryptocurrency adoption. Individuals who had peers or close contacts that used crypto currencies

Price Value (PV)

The hedonic motivation, price value, and habit factors were included as independent variables in the extended UTAUT2 model to further explain consumer use and intention in a technologically advancing world by Venkatesh et al.(2012). Yet among the extended variables, price value is most essential to establishing user intention in a world where costs matter. Price value is defined as the user's perception of whether the anticipated benefits of using technology exceed the anticipated monetary or non-monetary costs. Should the technology user recognize that anticipated benefits from using technology whether it's increased productivity, convenience, or gains outweigh the potential cost, either financial or in time spent, then price value is positive and likely increases intention to use.

Such price value exists for cryptocurrency use in Ethiopia. For many users, anticipated costs associated with currency extend beyond transaction fees, but include long-term financial benefits such as anti-inflation opportunities or gains and returns. For a country with many low economic wealth individuals, perceiving an opportunity to save on costs translates to whether the technology is more costly or less costly than traditional banking. Huang and Kao,(2015) determined that when perceived affordability of such technologies shapes consumer adoption intentions compounded with social support for such use, adoption is likely; for Ethiopia, if

people determine that cryptocurrency can provide the same services for a more affordable price, intention to use skyrockets.

Effort Expectancy (EE)

Effort expectancy is the perceived extent to which an individual thinks that a new technology can be effortlessly used Venkatesh et al.(2003). It is somewhat similar to the "perceived ease of use" in Technology Acceptance Model (TAM) and to the "complexity" concept of the Diffusion of Innovation theory. Along with performance expectancy, it is one of the strongest predictors of users' behavioral intention in the early stages of technology adoption. However, its effect progressively diminishes as users adapt to the system

. The effort expectancy construct is relevant in both voluntary and mandatory usage scenarios, although it is only meaningful for the first time period and loses significance Effort expectancy refers to the perceived ease or difficulty of using a technology, which has been found to significantly impact the intention to adopt new technologies, including cryptocurrency. Previous studies have consistently shown that if a technology is easy to use, people are more likely to adopt it.

Venkatesh et al.(2003) in their Unified Theory of Acceptance and Use of Technology (UTAUT) found that effort expectancy significantly influences user acceptance of technology. This finding has been applied to various technologies, including mobile apps and financial systems like cryptocurrency.

Alalwan et al.(2017) conducted a study on mobile banking in Jordan and found that ease of use (effort expectancy) significantly influenced the adoption of mobile banking. This can be applied to cryptocurrency adoption as well, since many people are hesitant to adopt cryptocurrency due to perceived complexity.

Chawla & Joshi (2019) studied cryptocurrency adoption in India and found that ease of use was a major factor. If the platforms and applications are perceived as difficult or too complex to navigate, individuals were less likely to adopt cryptocurrency over time when usage is prolonged and Sustained Venkatesh, Et Al.(2003)

Facilitating Condition (FC)

Facilitating conditions refer to the availability of resources and infrastructure to support the use of a technology. In the case of cryptocurrency, this includes access to the internet, smartphones, cryptocurrency exchanges, and financial literacy.

Venkatesh et al.(2003) in the UTAUT framework found that facilitating conditions had a direct effect on technology usage, especially in resource-constrained environments.

Lai, (2017) reviewed factors influencing mobile payment adoption in emerging economies and found that facilitating conditions (such as access to mobile devices and the internet) were critical. This can be extended to cryptocurrency adoption, where people without access to reliable internet or smartphones are less likely to adopt.

Kim et al.(2010) examined the adoption of mobile technologies and found that facilitating conditions, such as the availability of infrastructure, strongly affected usage intention. For cryptocurrency, the absence of local exchanges, lack of payment options or limited access to reliable internet can create barriers to adoption.

Perceived Risk (PR)

Venkatesh et al, (2003) in their Unified Theory of Acceptance and Use of Technology (UTAUT) found that effort expectancy significantly influences user acceptance of technology. This finding has been applied to various technologies, including mobile apps and financial systems like cryptocurrency.

Alalwan et al.(2017) conducted a study on mobile banking in Jordan and found that ease of use (effort expectancy) significantly influenced the adoption of mobile banking. This can be applied to cryptocurrency adoption as well, since many people are hesitant to adopt cryptocurrency due to perceived complexity.

Chawla & Joshi, (2019) studied cryptocurrency adoption in India and found that ease of use was a major factor. If the platforms and applications are perceived as difficult or too complex to navigate, individuals were less likely to adopt cryptocurrency.

In Ethiopia, perceived risk might be heightened due to the lack of regulatory frameworks, concerns about volatile markets, and general uncertainty surrounding the security of cryptocurrency transactions. Potential adopters might hesitate to invest in cryptocurrency, fearing they might lose their money due to market swings or fraud. Additionally, due to low financial literacy, some people might not fully understand how cryptocurrency works, increasing their perceived risk.

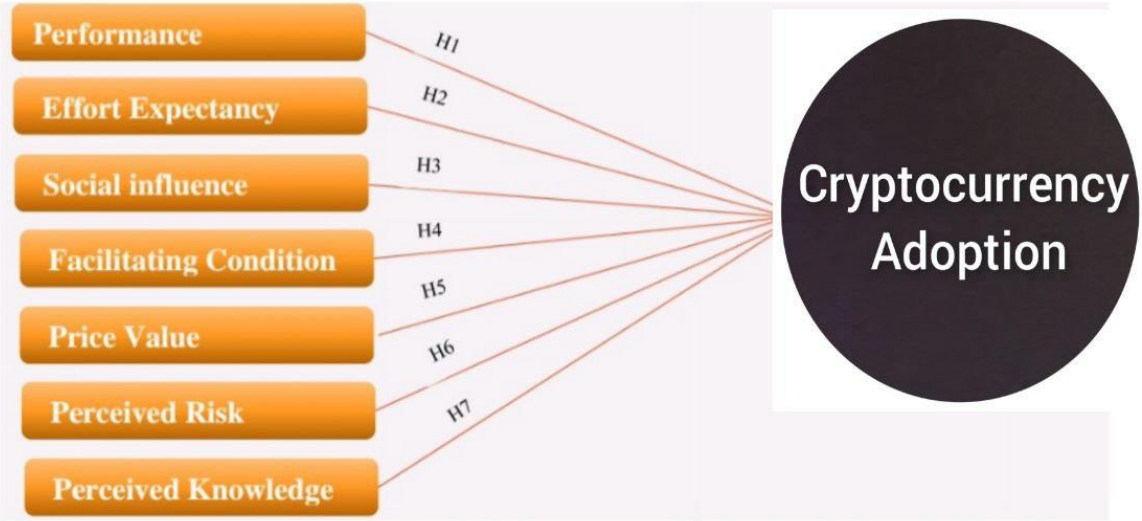
Table 2.1 aligned research objectives and questions with variables

Research objective	Research question	Aligned variables
Assessing the level of awareness of crypto currency in Ethiopia	I, what is the awareness of crypto currency in Ethiopia?	Perceived knowledge (PK), Social influence (SI)
•To identify challenges in adopting Crypto currency in Ethiopia	II, What are the challenges in adopting crypto currency in Ethiopia?	Perceived risk (PR), Facilitating condition (FC) ,Effort expectancy (EE), Price value (PV)
• Analyze the regulatory uncertainty in adopting crypto currency in Ethiopia	III, how do existing platforms align with Ethiopia's regulatory policies on crypto currency adaptation and usage?	Facilitating condition (FC), Social influence (SI), Performance expectancy (PE)

2.8. Conceptual Framework

The relationship between variables or study constructs is depicted diagrammatically in a conceptual framework. The following factors were proposed to have on the challenge and opportunities on the adoption of cryptocurrency based on a theoretical and empirical literature analysis of previous studies in the area of technology acceptance and adoption of innovations. Hence, the conceptual framework adapted is shown as follow:

Figure2. 3 Conceptual frameworks



A conceptual model adapted from Venkatesh, et al. (2012)

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter outlines the strategies and procedures that were used to collect and analyze data. it focuses on the systematic and scientific aspects of how the studies were carried out. this section of the study essentially deals with the procedures by which the researcher began his work of describing, explaining and predicting the phenomena. the methodology looks into the approach, design, sources of data, the study site and population, the sample size and sampling technique, the procedures of data collection, the data gathering tools, the methods of data analysis by which knowledge is gained giving the work plan of the research. the major areas that of particular concern to the proper execution of this study were include: study area and target population, the collection of primary and secondary data, and the data analysis techniques used in arriving at the solution to the problem were under study. the statistical package for social sciences (spss) was used in analyzing the data. this section of the study will help in getting an in-depth look of the problem and the solution.

3. Introduction

3.1 Research Design and Approach

In Order To Attain The Objective Of The Study And To Sufficiently Answer The Research Question, The Researchers Have Adopted Both Quantitative And Qualitative (Mixed) Research Approaches. The Motivation Behind Adoption Of Mixed Approach Is To Collect Data That Could Not Be Found By Just Only Using A Single Approach. In Addition, Mixed Approach Supports Better Understanding Of A Research Problem By Uniting Both Numeric Values From Quantitative Research And The Feature And More Verbal Explanation Of Qualitative Research And To Overcome The Limitations Of Applying Any Of The Single Approach**.**

3.1.1 Quantitative Approach;

were used explanatory to test hypotheses derived from UTAUT2 related to adoption of cryptocurrency replace two elements hedonic motivation and habit with Perceived knowledge, Perceived Risk and Performance Expectancy, Social influence, Price Value, Effort Expectancy, Facilitating Condition construct. In the early phases of adopting new technologies, especially

when dealing with financial transactions, users' concerns for security and privacy outweigh those for enjoyment and habit, which are more common in a mature market Palau-Saumell, (2019).

3.1.2. Qualitative Approach

were used to explore individual and institutional perceptions, regulatory concern, and contextual challenges surrounding cryptocurrency adoption in Ethiopia.

Moreover, for this specific research the researcher was used explanatory & exploratory method of research design in order to describe a comprehensive aspect of the issue based on the mixed approach employed.

In line with the Pragmatism philosophy, the study was adopt a mixed approach which is a method for conducting research that involves collecting, analyzing and integrating quantitative and qualitative paradigms Creswell.(2014). The aim here is to gain breadth and depth of understanding and corroboration, while offsetting the weaknesses inherent in using each approach by itself.

According to Lincoln, Lynham and Guba,(2011) this approach offers the benefit of possibility of triangulation which allows the researcher to identify aspects of a phenomenon more accurately by approaching it from different vantage points using different methods and techniques. The use of this approach was necessitated by the need to look at the research question from different angles, and clarify unexpected findings and potential contradictions Mertens. (2007).

3.2. Population and Sampling

3.2.1. Target Population

The study targets various stakeholders like investors, policymakers, bankers, miners and traders, financial technology professionals and members of the general public in Ethiopia.. Here, purposive sampling technique was used to select respondents to be included with the objective of gaining basic information about the topic under research.

To determine the sample size, Cochran's formula (Cochran, 1963) was applied:

$$n_0 = \frac{Z^{2} \cdot p \cdot q}{e^{2}}$$

Where:

n_0 = required sample size

Z = Z-value (1.96 at 95% confidence level

p = estimated proportion of the population (0.5 used for maximum variability)

q = 1 – p (0.5)

e = desired margin of error (0.05)

$$n_0 = \frac{(1.96)^{2} \cdot 0.5 \cdot 0.5}{0.05^{2}} = 384.16 \approx 384$$

Since the total population (N) is 50,000, the finite population correction (FPC) was applied:

$$n = \frac{n_0}{1 + \frac{n_0 - 1}{N}}$$

$$n = \frac{384}{1 + \frac{383}{50,000}} \approx 241$$

Thus, the final sample size was 241 respondents. Out of this, 240 questionnaires were distributed, and 201 valid responses were collected, giving a response rate of 83.75%, which is considered excellent (Mugenda, 2009).

3.2.2. Sampling Technique

In research settings in most cases, it is not always feasible to obtain data from all the members of the population being targeted. As a result, researchers are forced to sample subjects whom they consider representative enough of the population in general. Sampling techniques are then categorized into two broad categories, i.e., probability sampling and non-probability sampling. For this study, a non-probability sampling method was utilized since it was not possible to determine the probability of choosing each member of the population. This type of sampling is commonly used in small-scale or single studies due to its cost and time benefits. Kothari, (2004). Among the many types of non-probability sampling, snowball sampling was used in this research.

For Quantitative;

Stratified Random Sampling; ensure diverse representation across different demographic and professional groups. The population was divided based on factors such as age, profession and level of awareness. The respondents must be Ethiopian residents aged 18 and above and have some exposure to financial or technological service. Technological services Cochran's formula was used to decide on the sample size for ensuring that the results are statistically generalizable. The quantitative part uses stratified random sampling to ensure that each subgroup is represented proportionately. We set the total sample size at 241 respondents, using Cochran's formula to ensure that the sample is statistically generalizable to the entire population of 50,000. The formula is actually a set of formulas that help determine survey sample sizes and was developed by William Cochran in the 1960s. It works for a variety of conditions and has been conveniently packaged into a set of rules that allow for easy application. The allocation of the sample embraces five major ensembles: 1. general public (30%); 2. banking and financial institutions (25%); 3. regulatory bodies (15%); 4. technology experts (15%); 5. cryptocurrency users and traders (15%). Respondents are randomly selected within each stratum to uphold objectivity. Surveys was given out through the internet and in person, using such platforms as Google Forms, various social media, and institutional contacts

For Qualitative;

The qualitative part uses purposive sampling to pick key informants such as regulators, financial experts, and blockchain developers who have deep knowledge on the challenges and opportunities to cryptocurrency adoption moreover; snowball sampling is utilized to access cryptocurrency users and traders since they are usually challenging to locate via traditional methods. The study can access a broader network of active crypto users by asking for referrals from initial participants.

3.3. Data Collection Method

The student researcher believes that both qualitative and quantitative data are relevant to this study. Hence, both of • Primary source: Include the actual information received from individuals who are directly and indirectly in contact to and specialize within areas of policy making, information technology & investors in various fields of business and business owners with good proximity to the technology. To gain comprehensive insights into the adoption of cryptocurrency in Ethiopia, this study was rely on primary data collected from key stakeholders involved in policy making, information technology, investment, and business. Interviews with financial regulators were provide an understanding of the legal and regulatory landscape, while discussions with technology experts were shed light on the infrastructure and security challenges associated with cryptocurrency. Additionally, insights from investors and business owners will help assess the practical implications, opportunities, and risks of adopting digital currencies in Ethiopia's financial ecosystem. By gathering perspectives from these diverse groups, the study aims to present a well-rounded analysis of the challenges and opportunities of cryptocurrency adoption in the country.

These types of data were collected from both primary and secondary data sources.

• Primary source: Include the actual information received from individuals who are directly and indirectly in contact to and specialize within areas of policy making, information technology & investors in various fields of business and business owners with good proximity to the technology. To gain comprehensive insights into the adoption of cryptocurrency in Ethiopia, this study was rely on primary data collected from key stakeholders involved in policy making, information technology, investment, and business. Interviews with financial regulators were

provide an understanding of the legal and regulatory landscape, while discussions with technology experts were shed light on the infrastructure and security challenges associated with cryptocurrency. Additionally, insights from investors and business owners will help assess the practical implications, opportunities, and risks of adopting digital currencies in Ethiopia's financial ecosystem. By gathering perspectives from these diverse groups, the study aims to present a well-rounded analysis of the challenges and opportunities of cryptocurrency adoption in the country.

• Secondary sources of information: They include all types of published and unpublished public or private documents and other information types. Documents and the Internet will be explored and assessed as another source of information as well as for the knowledge on Cryptocurrency and Blockchain technology in general. Mainly, questionnaires and interviews were applied as research instruments for collecting the best data from different primary sources developed by the researcher, survey questionnaire, interview and structured questionnaire shall include..

3.3.1. Quantitative Data Collection Procedures

A standardized questionnaire was applied to assess principal variables as per the UTAUT2 model by employing items on Likert scales. The questionnaire had two parts: the first collected demographic information from the respondents, and the second collected responses against the challenges and opportunities of accepting cryptocurrency. Questionnaire instruments were derived from Venkatesh et al., (2012) and P. Tiwari, S. Tiwari, and Gupta. (2021). specifically, the scales for six constructs—performance expectancy, effort expectancy, social influence, facilitating conditions, price value, and adoption of cryptocurrency were sourced from Venkatesh et al., (2012). Scales for constructs of perceived risk and perceived knowledge were sourced from Tiwari et al. (2021) and adapted accordingly.

3.3.2. Qualitative Data Collection Procedures

In-depth interviews were conducted with financial experts, regulators, and technology developers to gather insights on cryptocurrency adoption, regulatory challenges, and technological advancements. The interviews were focus on Ethiopia's financial regulations, the current stance on cryptocurrency, and global best practices relevant to the local context.

3.4. Data Analysis Methods

Qualitatively and quantitatively researched data is examined which centers on finding the data by open-ended, interview and conversational communication through which purposively selected key informants were selected. It can offer and allow a more extensive analysis and provides more insight into research issues. The study employed the blend of qualitative and quantitative study design that is used to provide qualitative data analysis by way of application of arithmetical as well as description of trends, attitude, or opinion of a population by inspecting a sample population. Since we employed semi qualitative designs on very few key informant responses were thermalized according to the objective and thoughts of the participants.

3.4.1. Quantitative Data Analysis

Quantitative data analysis techniques were utilized in the current study. In doing so, Statistical Package for Social Sciences (SPSS), which are widely used in social and business studies, were used by the researcher. Through tables, figures, and other graphical presentation, the descriptive analysis was used in investigating, describing, and documenting the demographic profiles of the respondents and the survey results obtained. Whereas inferential statistical tests like the Pearson's correlation coefficient and regression were applied to evaluate the relationship between variables as well as the existence of an independent variable effect on the dependent variable of the research, respectively

3.4.2. Qualitative Data Analysis

Thematic analysis was conducted NVIVO or manual coding. Transcription of interviews and FGDS, Coding and classifications into themes and were use interpretation to support or contrast quantitative findings.

3.5 Validity And Reliability

FOR QUANTITATIVE RELIABILITY and validity a pilot test were conducted with 10-15 respondents to refine the questionnaire. Cronbach’s Alpha were used to measure internal consistency (acceptable threshold; a>= 0.7) and construct validity were ensured by aligning the question with UTAUT2 constructs.

FOR QUALITATIVE TRUSTWORTHINESS, credibility was established through data triangulation, transferability through detailed contextual descriptions, dependability through transparent documentation, and conformability through expert verification and direct quotes from participants.

Table 3.1 result of Cronbachs alpha values

VARIABLES	CRONBACHS ALPHA	ITEMS
Perceived knowledge (PK)	.854	4
Performance Expectancy (PE)	.816	4
Social Influence (SI)	.731	4
Price Value (PV)	.709	3
Effort Expectancy (EE)	.838	4
Facilitating Conditions (FC)	.724	4
Perceived risk (PR)	.776	4
Cryptocurrency Adoption(CA)	.758	4
Total tested item		31

3.6. Ethical Consideration

Ethics can be defined as the moral values and principles which guide the way that individuals and/or groups conduct their actions. The questionnaires was sent out with a cover letter characterizing the research purpose in more detail and should include the permission from AAU which should identify the research is being undertaken by a student at AAU. The study was keep the participants completely anonymous. The researcher was also ensuring that all respondents are treated with respect and that no respondents were coerced into providing responses by providing a voluntary consent section in the introductory section of the questionnaire. All material from respondents or other authors on the subject used in this research was acknowledged.

CHAPTER FOUR

4. DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

In this chapter, the collected data through the using of both quantitative and qualitative data gathering approach are analyzed. Data collected from respondents using survey questions were presented in this chapter using a variety of visual tools, including tables and charts. Further, the data was thoroughly be analyzed and interpreted to give a shied-light to presented data.

4.2. Background Information of the Respondents

In conducting this study, a total of (240) study participants/key informants were purposively selected among those who interact, both directly and indirectly, with cryptocurrency and who specialize in the engagements of policy making, information technology, investors in various fields of business, and business owners of the technology with good proximity to other forms of cryptocurrencies in Addis Ababa. Data were collected utilizing structured self-administered questionnaire. Of the total (240) study participants selected, (201) completed and submitted a questionnaire, for a response rate of (83.75%). Mugenda, (2009) defines a response rate of 50% as acceptable for analysis and reports, a 60% response rate is good, and a response rate of 70% and above is considered excellent.. Based on the assertion, the response rate was excellent.

4.3 Characterstics Of Respondent

Table 4.1 Demographic data of respondents

Description		Frequency	Percentage
Age			
	Below25	31	15.4
	26-36	115	57.2
	37-48	47	23.4
	Above 48	8	4
	TOTAL	201	100
Gender	Male	109	54.2
	Female	92	45.8
	Total	201	100
Occupation	Student	22	10.9
	Banker	40	19.9
	Business Owner	39	19.4
	Government Employee	37	18.4
	Other	63	31.3
	Total	201	100
Level of Education	High School	13	6.5
	Diploma	23	11.4
	Bachelor Degree	137	68.2
	Master's Degree or Higher	28	13.9
	Total	201	100
Category Best Describe	General Public	48	23.9
	Banking and financial institution Employee	45	22.4
	Regulatory Body/Policymaker	27	13.4
	Technology Expert /developer	25	12.4
	Cryptocurrency user/trader	55	27.5
	Total	201	100

From the data shown in the Table 4.1 above, it can be seen that 57.2% of all the responses were from respondents in the 26-36 age category, the next biggest cohort was 23.4% the 37-48 age cohort, then 15.4 percent that were Below 25, and finally 4% that were over the age of 48. In terms of the respondents' gender, this survey had 54.2% male respondents and 45.8% female respondents.

In terms of the occupation of the respondents, 31.3 percent of the respondents were from other category which could includes any other job categories not being asked on the survey e.g. NGO, Family support, and are defined as unemployment and might rely on families' and relatives' support. 19.4% Business owners. Furthermore, 19.9% of the respondents of this study are Banker, while 19.4% are Government employees, the small remaining cohort of respondents which was, 10.9 % are Students. As seen above, the bulk of the respondents to this survey were in good economical condition therefore indicating a strong potential user of Cryptocurrency. From the table above it can be seen that the largest percentage of the respondents that gave responses (68.2%) have an Undergraduate qualification and 13.9% of the respondents have Masters,11.4% Diploma and 6.5% are High school. from table 4.1 we can demonstrate that the majority of the respondents are highly qualified.

Finally we see in Table 4.1 that which reports 27.5% of the respondents identify as crypto users or traders which we note is the largest group out of all the groups. This group is followed by 23.9% which represents the general public that may have some degree of interest in crypto but may not be at the point of use. Also we have 22.4% of employees from the banking and financial sector that show a large level of institutional knowledge and possibly professional activity in digital finance. And lastly 12.44% which we put into the category of tech experts or developers a group which we can expect to have a very good technical knowledge of the crypto and the underlying blockchain tech. As a whole this range of different types of respondents does present a very diverse set of experiences and with that we get a broad range of perspectives which in turn enriches our study’s look at crypto adoption issues and opportunities.

4.4 Likert Scale Values And Analysis Of Aggregated Responses

Table 4.2 Aggregate responses of Likert scale items

Perceived Knowledge (PK)			
ITEM	N	MEAN	SD
I am aware of how cryptocurrency transactions work.	201	3.95	.986
I can explain cryptocurrency concepts to others.	201	3.68	1.008
I am familiar with different types of cryptocurrency (e.g., Bitcoin, Ethereum).	201	3.77	1.005
I understand the risks and benefits of using cryptocurrency.	201	3.67	.965
Grand Mean and standard deviation		3.7675	0.991

Performance expectancy(PE)			
ITEM	N	MEAN	SD
Cryptocurrency transactions are faster than traditional banking services.	201	3.48	1.179
Cryptocurrency can reduce transaction costs.	201	3.27	1.248
Cryptocurrency provides better financial accessibility than banks.	201	3.5	1.001
The use of cryptocurrency will lead to financial innovation in Ethiopia.	201	3.71	1.099
		3.5	1.13175

Social Influence (SI)			
ITEM	N	MEAN	SD
My friends, family, or colleagues encourage me to use cryptocurrency.	201	3.25	1.148
Influential figures (e.g., celebrities, business leaders) impact my perception of cryptocurrency.	201	3.56	1.062
Cryptocurrency adoption is growing among businesses in Ethiopia.	201	4.05	.963
The media (TV, social media, news) has influenced my views on cryptocurrency.	201	3.65	1.029
Grand Mean and standard deviation		3.63	1.0505
Price Value (PV)			
ITEM	N	MEAN	SD
Cryptocurrency is a cost-effective alternative to traditional banking.	201	3.65	1.140
The potential financial gains from investing in cryptocurrency are attractive.	201	4.00	1.075
Cryptocurrency can serve as a reliable store of value.	201	3.74	1.115
Grand Mean and standard deviation		3.8	1.11
Effort Expectancy(EE)			
ITEM	N	MEAN	SD
Learning to use cryptocurrency is easy for me.	201	3.26	1.283

Cryptocurrency platforms (wallets, exchanges) are user-friendly	201	3.51	1.054
The process of buying and selling cryptocurrency is simple.	201	3.39	1.157
Understanding cryptocurrency does not require advanced technical knowledge.	201	3.37	1.350
Mean and standard deviation		3.38	1.211

Facilitating Condition(FC)			
ITEM	N	MEAN	SD
Ethiopia has the necessary technology infrastructure (internet, digital access) to support cryptocurrency.	201	3.79	1.029
The Ethiopian government should create policies that facilitate cryptocurrency adoption.	201	4.03	0.935
Financial institutions should integrate cryptocurrency into their services.	201	3.65	0.866
Access to educational resources will make cryptocurrency adoption easier.	201	4.06	0.988
Mean and standard deviation		3.88	0.9545

Perceived Risk(PR)			
ITEM	N	MEAN	SD
I am concerned about the security of cryptocurrency transactions.	201	3.79	1.075
I fear losing money due to cryptocurrency price volatility.	201	3.9	1.175
The lack of government regulation increases the risk of using cryptocurrency.	201	3.8	1.109
I worry that cryptocurrency wallets and exchanges can be hacked.	201	3.58	1.079
Mean and standard deviation		3.76	1.109

Cryptocurrency Adoption (CA)			
ITEM	N	MEAN	SD
I am willing to use cryptocurrency for financial transactions.	201	3.98	0.995
I believe cryptocurrency adoption will increase in Ethiopia.	201	4.04	0.89
The adoption of cryptocurrency will positively impact Ethiopia's financial sector.	201	3.92	0.902
I would recommend cryptocurrency to others for financial transactions.	201	3.8	0.9
Mean and standard deviation		3.93	0.92

This section gives the mean score and standard deviation of each survey items under the seven predictor factors as well as the dependent variable. On a five-point Likert scale ranging from 1 for strongly disagree, 2 for disagree, 3 for neutral, 4 for agree, to 5 for highly agree, the average score of the items shows the level of agreement of the responders. From scales that are "high rank" for mean ratings 4.0 and above, "middle rank" for 4.0 to 3.5 mean ratings, and "low rank" for 3.5 and lower ratings, mean and standard deviations from survey data are interpreted Amentie, et al., (2016).

4.5 Summary Of Cumulative Responses To Items On The Likert Scale

TABLE4.3 summary of cumulative responses to items on the likert scale

VARIABLES	NO	M	SD
Perceived knowledge (PK)	201	3.77	0.991
Performance Expectancy (PE)	201	3.5	1.131
Social Influence (SI)	201	3.63	1.050
Price Value (PV)	201	3.8	1.11
Effort Expectancy (EE)	201	3.38	1.211
Facilitating Conditions (FC)	201	3.88	0.9545
Perceived risk (PR)	201	3.76	1.109
Cryptocurrency Adoption(CA)	201	3.93	0.92

Those respondent said they knew a fair amount about it (3.77) and thought they had access to the resources and assistance they needed to use cryptocurrencies, such as mobile devices and the internet (mean= 3.88). Additionally, respondents believed that cryptocurrencies offered good value for their money (mean= 3.8) and that social influences had a moderate impact (mean= 3.63). However, participants were somewhat less confident about the benefits of using

cryptocurrency to improve their performance (mean= 3.5), and the expectation of effort needed was the lowest rated (mean= 3.38), suggesting that many still find it difficult or confusing to use. Perceived risk was also an issue (mean= 3.76), suggesting persistent problems with trust and safety. Despite these challenges, there was a strong general desire to embrace crypto currencies (mean= 3.93). According to this peoples have good interest on this technology specially if it usability and security can be solved.

4.6 The Correlation Analysis

TABLE 4.4 PEARSON CORRELATION RESULT

Correlations

		Pk	PE	SI	PV	EE	FC	PR	CA
Pk	Pearson Correlation	1	.179*	.265**	.301**	.143*	.409**	.282**	.406**
	Sig. (2-tailed)		.011	.000	.000	.043	.000	.000	.000
	N	201	201	201	201	201	201	201	201
PE	Pearson Correlation	.179*	1	.055	.059	.115	.148*	.156*	.268**
	Sig. (2-tailed)	.011		.436	.405	.104	.036	.027	.000
	N	201	201	201	201	201	201	201	201
SI	Pearson Correlation	.265**	.055	1	.335**	.159*	.300**	.251**	.033
	Sig. (2-tailed)	.000	.436		.000	.024	.000	.000	.639
	N	201	201	201	201	201	201	201	201

PV	Pearson Correlation	.301**	.059	.335**	1	.200**	.225**	.179*	.152*
	Sig. (2-tailed)	.000	.405	.000		.004	.001	.011	.031
	N	201	201	201	201	201	201	201	201
EE	Pearson Correlation	.143*	.115	.159*	.200**	1	.075	.039	.57
	Sig. (2-tailed)	.043	.104	.024	.004		.287	.581	.000
	N	201	201	201	201	201	201	201	201
FC	Pearson Correlation	.409**	.148*	.300**	.225**	.075	1	.285**	.322**
	Sig. (2-tailed)	.000	.036	.000	.001	.287		.000	.000
	N	201	201	201	201	201	201	201	201
PR	Pearson Correlation	.282**	.156*	.251**	.179*	.039	.285**	1	.447**
	Sig. (2-tailed)	.000	.027	.000	.011	.581	.000		.000
	N	201	201	201	201	201	201	201	201
CA	Pearson Correlation	.406**	.268**	.033	.152*	.57**	.322**	.447**	1
	Sig. (2-tailed)	.000	.000	.639	.031	.000	.000	.000	
	N	201	201	201	201	201	201	201	201

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Correlation analysis was employed in this study to ascertain whether the independent variables were significantly related to the dependent variable and, if so, to what degree and direction. The most common form of statistical measurement for this was employed: Pearson product-moment correlation Pallant.(2005). The prerequisite for Pearson correlation, according to Stehlik-Barry and Babinec (2017), is that the variables be interval (continuous) level data. The data for this study was at such a level because all variables were transformed from individual item scores on the questionnaire to average scores for SPSS analysis.

The Pearson correlation coefficients (r) range from -1 to +1, with a positive or negative sign denoting direction and the number denoting strength. A correlation of ±0.10 to ±0.29 indicates a weak relationship; ±0.30 to ±0.49 indicates a moderate relationship; ±0.50 to ±1.00 indicates strong correlation Pallant.(2005).

As noted by Table 4.4, the construct of effort expectancy (EE) had the highest correlation with r=0.57 for the dependent variable of cryptocurrency adoption, while perceived risk (PR) and perceived knowledge (PK) attributes had an r=0.447, equating to moderate correlation. Facilitating condition (FC) was second with an r=0.322, rendering this a moderate correlation as well. The subsequent constructs of performance expectancy (PE) with 0.268; price value (PV) with 0.152; and social influence (SI) with 0.033 were weak correlations to the dependent variable, signifying low association toward cryptocurrency adoption.

Therefore, the results revealed that there is a positive association with cryptocurrency adoption with all independent variables. The strongest association was with effort expectancy, while perceived risk, perceived knowledge, and facilitating condition were moderately related. Performance expectancy, price value, and social influence constituted the weakest constructs in relation to cryptocurrency adoption.

4.7. Test of Normality of Data

To conclude whether the dataset is normal or not, several statistical tests were conducted on SPSS 23. They included Skewness and Kurtosis statistics, Normal Probability Plot (NPP), and histogram analysis. It is necessary to test for normal distribution of data since the majority of parametric statistical techniques assume normality. Normality may be assessed using two broad methods: pictorial or graphical and numerical methods. For the numerical evaluation, the

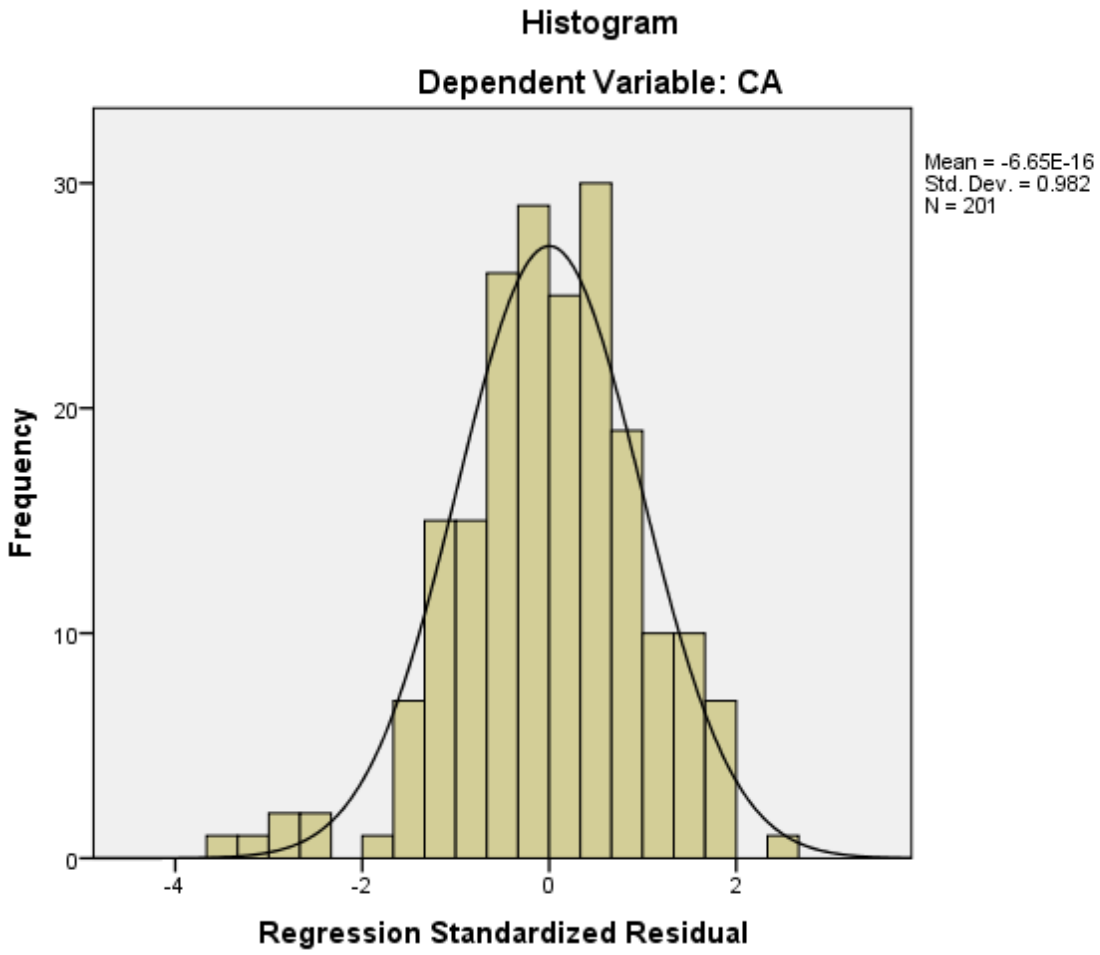
standardized values of Skewness and Kurtosis should lie within the range of ±2, as proposed by (Hair et al., 1998), meaning that the data are roughly normal.

TABLE4.5 DESCRIPTIVE STATISTICS

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Pk	201	-1.355	.172	1.228	.341
PE	201	-.743	.172	-.678	.341
SI	201	-1.220	.172	1.079	.341
PV	201	-1.279	.172	.950	.341
EE	201	-.526	.172	-1.165	.341
FC	201	-1.811	.172	3.468	.341
PR	201	-1.747	.172	2.224	.341
CA	201	-1.664	.172	4.006	.341
Valid N (listwise)	201				

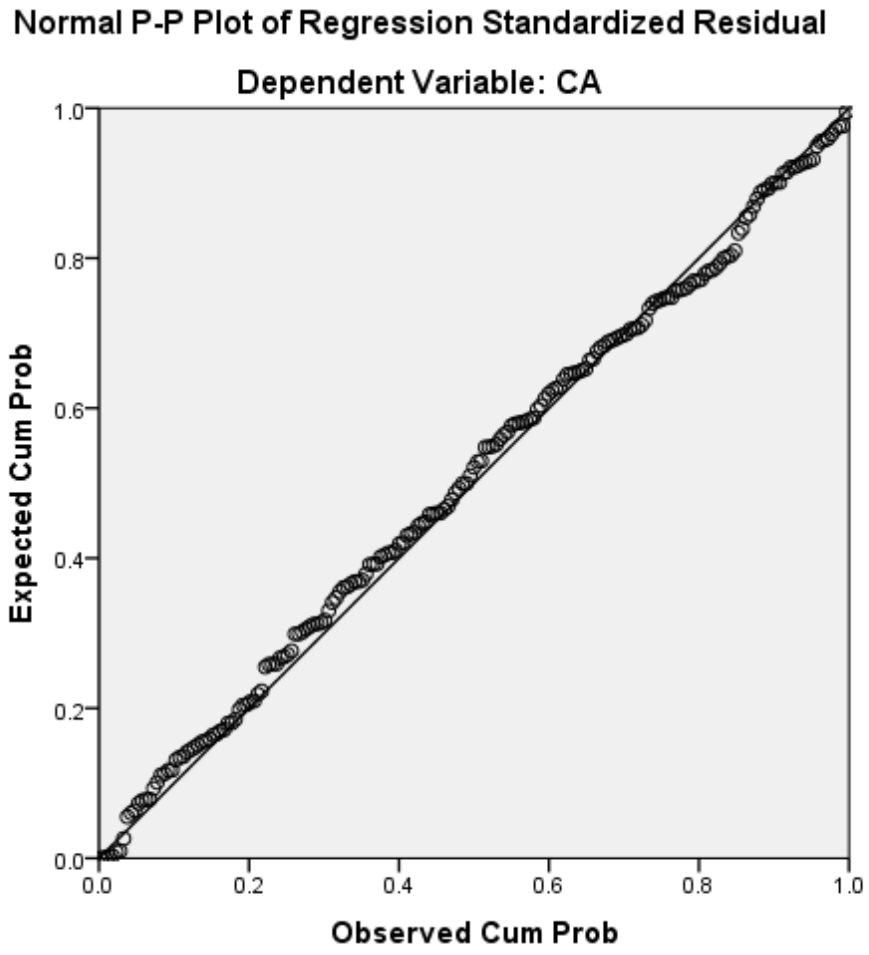
As the figures of all variables in Table 4.5 Above indicate, the results of Skewness and Kurtosis were within ±2. Thus, it is safe to say that the data were normally distributed and consistent to move ahead for analysis. Normal histogram test was conducted to test the normality of the distribution, since it is presented below.

Figure4. 1 A histogram for normality test of data



To satisfy the requirements of regression analysis which is that the error term be normally distributed we did in Figure 4.1 what a histogram does to visually check the residual distribution. We found that for the most part the residuals fit the curve which has the shape of a bell. Also although some standardized residuals do not follow the trend of the rest the main mass of the bars which represent the data points are centered around the mean value which is the peak of the bell. This we use as an indication that for the large part our residuals are normally distributed. Also we used a Normal P-P Plot which gave support to the normality of the residuals.

FIGURE4. 2 NORMAL PROBABILITY PLOTS



The above normal P-P plot with figure 4.2 , which shows no significant divergence in the spread of the residuals and shows no significant detachment from normalcy, provided additional evidence for normality.

4.8. Test Of Multicollinearity

TABLE 4.6 TEST OF MULTICOLLINEARITY AMONG VARIABLES

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.548	.325		4.763	.000		
	Pk	.219	.056	.260	3.868	.000	.747	1.338
	PE	.117	.046	.152	2.537	.012	.942	1.061
	SI	-.168	.058	-.187	-2.891	.004	.802	1.246
	PV	.023	.051	.029	.445	.657	.818	1.223
	EE	.015	.042	.022	.360	.719	.935	1.069
	FC	.141	.066	.142	2.142	.033	.768	1.303
	PR	.287	.051	.351	5.573	.000	.853	1.173

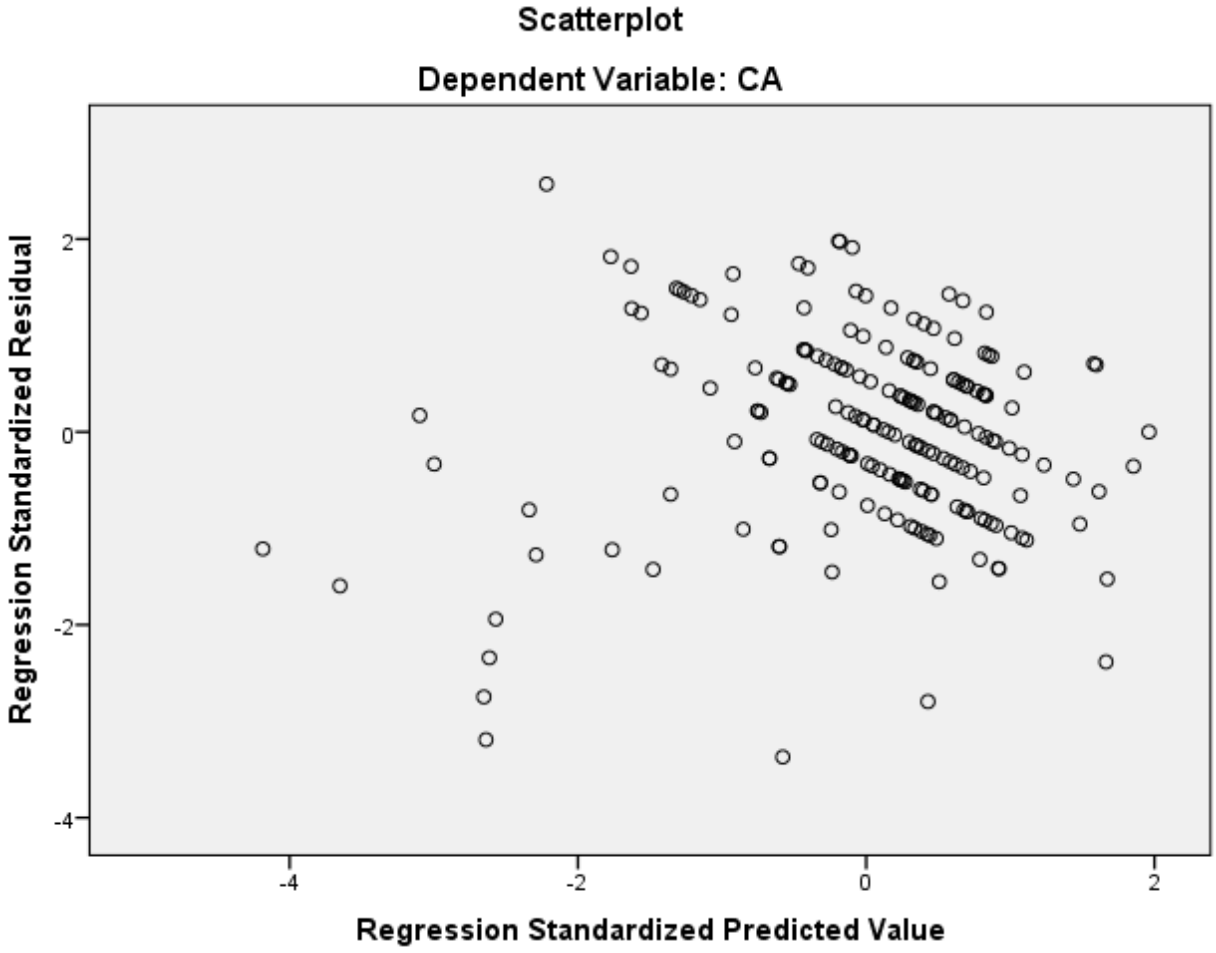
a. Dependent Variable: CA

A test was performed to detect potential multicollinearity issues because high correlations between independent variables make it difficult to select significant predictors or produce redundant variables with no unique effect on the dependent variable. Many marketing researchers suggest this type of testing. The assessment of multicollinearity used Tolerance and Variance Inflation Factor (VIF) values to determine how much each predictor variable helps predict the dependent variable Hair et al., (2002). Hair et al. (2002) state that multicollinearity becomes problematic when tolerance levels fall below 0.10 or VIF levels exceed 10. The tolerance levels in Table 4.6 exceeded 0.10 and VIF levels remained below 10 for all

independent variables which indicates that the data met the acceptable limits. The absence of multicollinearity enables reliable performance of multiple linear regression analysis.

4.9 Test of Homoscedasticity Assumption

FIGURE 4. 3 TEST OF HOMOSCEDASTICITY SCATTER PLOT



4.10. Determinants Of Cryptocurrency Adoption

The following section presents regression results to determine if independent variables explain the dependent variable variation after fulfilling linear regression analysis requirements. The study examines how performance expectancy, effort expectancy, social influence, facilitating conditions, price value, perceived risk and perceived knowledge affect cryptocurrency adoption through quantitative analysis.

TABLE4.7 MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.590[a]	.349	.325	.57732

a. Predictors: (Constant), PR, EE, PE, PV, FC, SI, pk

Table 4.7 reports the main results of the study which looks at the relationship between adoption of crypto and seven which we looked at in this research with R value of 0.590. Also we noted an R square value of 0.349 which tells us that out of the seven predictors we looked at (performance expectancy, effort expectancy, social influence, facilitating condition, price value, perceived risk, and perceived knowledge) which in total account for 34.9 percent of the variation in the adoption of crypto services.

Scholars like Alalwan. (2018) and Kshetri.(2017) would argue that in emerging economies, the adoption of new financial technologies is influenced by macro conditions like institutional trust, legal clarity, and financial literacy. Such environmental and structural conditions, not fully contained in this model, presumably explain most of the explained variance remaining. Therefore, 0.349 R^2 accounts for both the importance of the factors in question and the effect of broader, unmeasurable contextual concerns those are specific to an emerging and still-developing crypto environment like Ethiopia's.

Additionally, t he model's adjusted R-square value of 0.0.325 demonstrates that it may be used to infer population-level data from sample-level results. The closeness between R-square and adjusted R-square values denotes the model's generalizability and minimal loss of predictive ability from a study sample to population.

TABLE 4.8 ANOVA (ANALYSIS OF VARIANCE) - SIGNIFICANCE OF MODEL USED

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	34.428	7	4.918	14.756	.000[b]
	Residual	64.326	193	.333		
	Total	98.754	200			

a. Dependent Variable: CA

b. Predictors: (Constant), PR, EE, PE, PV, FC, SI, pk

As it is shown in Table 4.8 we present the regression and residual sum of squares along with their respective degrees of freedom. We reported an F value of 14.75 from the ANOVA which also had a p value of 0.000 which is indicative of statistical significance. That F value supports the rejection of the null hypothesis which put forth that all regression coefficients are zero and in favor of the alternative hypothesis which is that at least one independent variable does have a significant effect on the dependent variable. Also the p value of 0.000 which is less than 0.001 confirms that the total regression model is indeed statistically significant.

TABLE 4.9 EFFECTS OF INDEPENDENT VARIABLES ON ADOPTION OF CRYPTOCURRENCY.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.548	.325		4.763	.000
	Pk	.219	.056	.260	3.868	.000
	PE	.117	.046	.152	2.537	.012
	SI	-.168	.058	-.187	-2.891	.004
	PV	.023	.051	.029	.445	.657
	EE	.015	.042	.022	.360	.719
	FC	.141	.066	.142	2.142	.033
	PR	.287	.051	.351	5.573	.000

a. Dependent Variable: CA

Table 4.9 reports a review of each independent variable's contribution to the dependent variable based on their respective regression coefficients. We used these coefficients to develop the regression equation for the study model. Of all the predictors Performance Expectancy had the greatest positive impact, while Perceived Risk had the least effect on the dependent variable.

The regression equation which we used a constant value of 0.615 and the coefficients for each variable is as follows:

CA (Cryptocurrency Adoption) = 1.548+0.219(PK) + 0.117 (PE) - 0.168(SI) + 0.023(PV) + 0.015(EE) + 0.141(FC) + 0.287(PR)

Based on the p values we found that Perceived Knowledge, Performance Expectancy, Social Influence, Facilitating Conditions, and Perceived Risk were the statisically significant predictors of cryptocurrency adoption which at the 95% confidence level had values below 0.05.

Thus we refined the regression model to include only the significant variables:

CA(CRYPTOCURRENCY ADOPTION) = 1.548+0.219(PK) + 0.117 (PE) - 0.168(SI) + 0.141(FC) + 0.287(PR)

4.11. Hypothesis Testing and Discussion

In this part, the focus is on the method of testing the hypothesis which involves the p-values from the regression analysis. A reminder from Chapter One: the student researcher developed seven concurrent working hypotheses that stemmed from the study's independent variables. This investigation is aimed at assessing whether the identified predictor variables in this case have a statistically significant effect on the adoption of cryptocurrency, which serves as the dependent variable. The outcomes of testing the hypotheses are presented in the following section.

H1; Perceived knowledge has significant influence on adoption cryptocurrency in Ethiopia.

Perceived knowledge created a p-value of 0.000, and because this is less than 0.05, the hypothesis is not rejected. This means that perceived knowledge has a significant effect on the adoption of cryptocurrency in Ethiopia. The more perceived knowledge a potential adopter believes or has about cryptocurrency, the more likely they are to adopt. Educational outreach will increase exposure and hopefully adoption.. That is, a 1% changes in Perceived knowledge led to a 26% increase in adaptation cryptocurrency.

H2; Performance expectancy has significant influence on adoption cryptocurrency in Ethiopia.

Performance expectancy created a p-value of 0.012, and because this is less than 0.05, the hypothesis is not rejected. This means that performance expectancy is significantly relevant to the acquisition of cryptocurrency. The expectation is that those who think cryptocurrency will give them the financial structure needed to be productive and efficient are more likely to acquire

it. Marketing efforts should focus on this plight. That is, a 1% changes in Performance Expectancy led to a 15.2% increase in adaptation cryptocurrency.

H3; Social influence has significant influence on adoption cryptocurrency in Ethiopia.

Social influence generated a p-value of 0.004, which is less than 0.05. Thus, the hypothesis is not rejected. It's interesting, however, that the coefficient is negative, meaning the more social influence someone has, the less likely they are to acquire cryptocurrency. This could be due to the need for social pressure and subsequent anxiety when people see what you're doing with your money, or it could mean that those with less influence are more willing to appreciate the transactional capabilities. Either way, efforts should be made to ensure that social acquisition is not as impactful as it seems it is.. That is, a1%changes in Social influence led to a -18.7% increase in adaptation cryptocurrency.

H4; Price value has significant influence on adoption cryptocurrency in Ethiopia.

Price value generated a p-value of 0.657, which, at a 95% confidence level, was greater than 0.05, based on the results presented in table 4.9. Consequently, the hypothesis was not supported. Therefore, an alternative hypothesis that says Price value has a significant effect on adoption of cryptocurrency was not supported and this result shows there is insufficient evidence to reject the null hypothesis.

H5; Effort expectancy has significant influence on adoption cryptocurrency in Ethiopia.

Effort expectancy a p-value of 0.719, which, at a 95% confidence level, was greater than 0.05, based on the results presented in table 4.9. Consequently, the hypothesis was not supported. Therefore, an alternative hypothesis that says Effort expectancy has a significant effect on adoption of cryptocurrency was not supported and this result shows there is no sufficient evidence to reject the null haypothesis.

H6; Facilitating condition has significant influence on adoption cryptocurrency in Ethiopia.

Facilitating conditions produced a p-value of 0.033, which is less than 0.05. Therefore, the hypothesis is not rejected. Facilitating conditions have a significant positive impact on the acquisition of cryptocurrency. This is crucial because if there is no ability to digital access and

informational/instructional value, then people cannot acquire cryptocurrency even if they have perceived knowledge. Services should facilitate access to information for cryptocurrency acquisition.. That is, a one percent changes in Facilitating condition led to a 14.2% increase in adaptation cryptocurrency

H7; Perceived risk has significant influence on adoption cryptocurrency in Ethiopia.

Perceived risk produced a p-value of 0.000, which is less than 0.05. The hypothesis is therefore not rejected. perceived risk has a positive relationship with cryptocurrency adoption within this setting. This might imply that respondents who knew of the risks were also more informed and therefore more likely to use, in other words possibly valuing the benefits more than the risks. This association deserves to be further studied in order to improve our understanding of the relationship between risk perception and adoption.

4.12. Summary of Hypothesis Testing Results

TABLE 4.10 TESTING RESULTS SUMMARY

Hypothesis	DECISION	REASON
H1; Perceived knowledge has significant influence on adoption cryptocurrency in Ethiopia.	Not Rejected	P=0.000<0.05 β=0.260
H2; Performance expectancy has significant influence on adoption cryptocurrency in Ethiopia.	Not Rejected	P=0.012<0.05 β=0.152
H3; Social influence has significant influence on adoption cryptocurrency in Ethiopia.	Not Rejected	P=0.004<0.05 β=-0.187
H4; Price value has significant influence on adoption cryptocurrency in Ethiopia.	Rejected	P=0.657>0.05

		β=0.029
H5; Effort expectancy has significant influence on adoption cryptocurrency in Ethiopia.	Rejected	P=0.719>0.05 β=0.022
H6; Facilitating condition has significant influence on adoption cryptocurrency in Ethiopia.	Not Rejected	P=0.033<0.05 β=0.142
H7; Perceived risk has significant influence on adoption cryptocurrency in Ethiopia	Not Rejected	P=0.000 β=0.351

4.12 qualitative Findings From The Interview

1. In your opinion, what is the biggest challenge in adopting cryptocurrency in Ethiopia**?.**

The participants pointed out multiple major obstacles which prevent cryptocurrency adoption in Ethiopia. Many participants shared the same concern about the absence of official legal structures and government endorsement for cryptocurrencies. The participant stated that government non-recognition of cryptocurrencies makes people avoid participation in this field. The lack of clear regulations creates widespread uncertainty among people. The fear of scams together with price volatility concerns were widespread among participants. The respondent shared a personal experience about people losing their money through hacking incidents that occurred during nighttime. The technical nature of cryptocurrency platforms creates difficulties because some users find the systems challenging to understand. The participant explained that crypto wallet and exchange operations remain too complex for people who lack technical expertise. The participants emphasized that rural areas face challenges because they have unreliable internet access which prevents digital currency usage. The participant explained that rural areas experience unreliable internet connections which create difficulties for digital currency usage.

2. How Do You Think Cryptocurrency Can Benefit The Ethiopian Economy?

The survey participants recognized cryptocurrency as a method to execute faster and less expensive transactions especially for international trade and remittance services that currently face high fees. The technology enables unbanked people to access digital financial services through its platform. The respondents highlighted cryptocurrency's ability to boost innovation while supporting borderless transactions and serving as a substitute for traditional monetary reserves in an inflation-prone economy. The perceptions match the high performance expectancy and perceived price value.

3. What Challenges Do You Personally Face In Using Or Understanding Cryptocurrency?

The present study reports that we found little info on crypto among the participants which we put down to the tech detail being over their heads. Also they'd put out that they knew Bitcoin – which is not true. We had reports of wide spread confusion around wallet set up and exchange navigation which we found to be complex and frightening. Many reported worry about making mistakes which in turn may cause them to lose money.

Also we saw that many of the participants did not know how to turn what they got from airdrops into local currency. A person got tokens from an airdrop but is still unsure how to turn them into cash. Also what we saw was a lack of local crypto exchanges as well as the Ethiopian government's crypto transaction ban which made it very difficult for users. We saw that the process of turning digital assets into Ethiopian birr via international platforms is very challenging due to legal and logistical issues. Also one of our respondents said that they can't use their tokens as the government has blocked access to exchanges.

This situation shows the need to educate people on crypto use and put in place regulations which will allow for safe conversion of digital assets to local currency. That we see as a gap which if filled would greatly improve the crypto experience for the average person which at present is marred by very large scale issues.

4. Do You Think The National Infrastructures Such As Telecom, Bank And Others Are Capable In Hosting An Internet Based Currency? Why?

The obtained results highlight some profound infrastructural and institutional barriers to the adoption of cryptocurrency in Ethiopia.Cryptocurrency adoption problems are deeply etched in the major state institutions like Ethio Telecom, Ethiopian Electric Power Corporation and the National Bank of Ethiopia (NBE). From my research, Ethio Telecom, the national mobile service provider, does not possess sufficient equipment because of unexpanded or unventilated telecommunication arms capable meeting the virtual currency transaction industrial standard. The respondents pointed out that mobile data and ADSL broadband access to the internet are poor. They do not offer desirable value because of their erratic bandwidth and even more unreliable connectivity which make devices get disconnected or "switch off". This subsequently interrupts online transactions in banking utilities, which nowadays also entails virtual currencies. Those problems cripple users since a internet connection is fundamentally a prerequisite to using a digital wallet, a crypto exchange platform, or a blockchain network. Maintaining the integrity network is paramount for digital system users. They called attention to significant gaps in protection against hacker sabotage and malware demands citing the incapacity and unpreparedness of Ethio Telecom.

5. Which Characters Of Cryptocurrency Are Attractive And Which Are Repulsive Or Bad In Terms Of Its Benefit To The Ethiopian Economy?

Among the most referenced advantages of cryptocurrency is that it has the potential to eliminate the issue of counterfeit currency—an issue that currently burdens the National Bank of Ethiopia (NBE), the economy, and even the international financial system. Cryptocurrencies are computer-generated tokens that are time-stamped on a blockchain whenever they are used in a transaction. The algorithm of the system provides effective encryption, allowing users to have complete control over their funds and offering a great deal of security and safety.

Another appealing benefit is that transactions made with cryptocurrencies carry significantly smaller fees compared to the ones charged by conventional banking networks, in addition to facilitating faster and more secure transfers. Relying on a decentralized ledger, cryptocurrency records are anonymously distributed on user nodes, and each transaction is time-stamped. Third-

party intermediaries are unnecessary since transactions are carried out directly among users via a peer-to-peer (P2P) protocol.

One of the main differences between fiat currency and cryptocurrency is that crypto offers protection against inflation as a result of economic shocks, downturns, or recessions. Cryptocurrency also offers cross-border transactions, making it highly attractive to exporters and importers. Such people are no longer compelled to utilize the National Bank of Ethiopia for foreign exchange, which is currently one of the significant bottlenecks to international trade across most industries.

Cryptocurrency also enables financial freedom by giving individuals an open financial network that is free from external control or censorship. One can access and utilize funds at any moment and from any location worldwide through a cryptocurrency wallet because it is in a global financial network. It also offers more efficient use of time and energy, transforming traditional bank procedures—both manual and automated—into faster, more direct processes.

However, there have been issues raised, primarily regarding the abuse in the Ethiopian economy. Some of the interviewees pointed out that cryptocurrency could be utilized to launder money, which can be more advanced but simpler than conventional methods. CipherTrace (2018) states that one of the common methods in crypto-based laundering is "layering," where funds are moved several times through different wallets and platforms to disguise their origin. If these transactions are difficult to trace, the laundered money can be infused back into the legitimate financial system with minimal possibility of detection.

CHAPTER FIVE:

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 SUMMARY

The research examined both the obstacles and possibilities of cryptocurrency adoption in Ethiopia by evaluating public understanding and perceived advantages and disadvantages as well as infrastructure preparedness and regulatory effects. The research used a mixed-methods design that merged survey data with interview responses to understand both public attitudes and institutional preparedness.

The research team obtained quantitative data from 201 Addis Ababa participants through standardized questionnaires while conducting qualitative interviews with technology experts and financial professionals and policymakers. The research employed the Unified Theory of Acceptance and Use of Technology (UTAUT2) to evaluate the constructs of perceived knowledge and performance expectancy and effort expectancy and facilitating conditions and social influence and price value and perceived risk.

The research showed that Ethiopians possess average to high knowledge about cryptocurrency while showing strong adoption interest mainly among young people. The adoption of cryptocurrency faces multiple barriers which include unclear regulations and technical constraints and insufficient digital skills and security worries and insufficient local infrastructure for exchanges and wallets.

The study revealed substantial opportunities exist particularly in urban areas with strong digital connectivity and among digital finance users. The government's rising interest in blockchain technology combined with affordable energy resources and a young population establishes a solid base for future cryptocurrency adoption.

5.2 CONCLUSION

This research reports that although at present Ethiopia is dealing with great regulatory, infrastructural, and educational issues related to crypto adoption we do see in the future a great opportunity for growth should strategic investments and policy changes are put in place. We

used a mixed methods approach which gave us a detailed look at not only what is measurable but also in depth perspectives from experts.

We found that variables like enabling environment, which knowledge one has around the issue and social influence play a large role in crypto adoption. Also we noted that while there is great interest in the benefits of crypto – lower transaction fees and greater financial inclusion for instance -- at the same time users are also very much aware of the issues which come with it which includes price fluctuation, security issues, and lack of legal support.

Ethiopia is at a junction which it may use its growing interest in and development of digital space to take a lead in regional crypto innovation or it may fall behind due to inaction.

5.3 RECOMMENDATION

Based on the findings of the current study, which aimed to quantify awareness, identify challenges, and probe regulatory uncertainty regarding the use of cryptocurrency in Ethiopia, the following major recommendations might be developed.

To start, the research confirmed that while there is increased public awareness of cryptocurrencies, awareness levels remain low in the general population. Because of this, there is a high need for mass education and awareness. Public education and digital literacy training need to be a collaboration involving government institutions, educational institutions, and tech communities. There needs to be educational programs across the country to explain the benefits and risks of cryptocurrencies and possible real-life applications of cryptocurrencies. With slowly introducing blockchain and cryptocurrency content into university courses, promotion of public awareness campaigns across the country to educate people on the fundamental basics of the technology including encouraging people to learn this information through social media posts in their local languages would create an awareness package closing the information gap and boosting public confidence and awareness.

Beyond the challenge of awareness, there are various infrastructural challenges (low internet penetration and frequent power outages and weak surveillance capabilities) that should also be included among the top challenges to adoption. A more extensive mobile data coverage and better broadband services are required to reach the rural areas, and to cover sub-urban or not-yet urbanized areas in order to sensibly increase crypto adoption. Likewise improved supply of dependable power supply and funding suitable cybersecurity systems via finance and training would be a significant first step in building a safer platform for any intended cryptocurrency use.

I trust these upgrades would not just support crypto adoption but also form part of the larger digital development opportunity for Ethiopia.

There was also a strong feeling of uneasiness if not outright fear raised by the issue of regulatory uncertainty, which was described as one of the key challenges. The National Bank of Ethiopia has recently banned the use of cryptocurrency and has left a gap in regulation that can only suffocate innovation and put back users, who are engaging in unregulated risky behaviours. I would advocate that the government is fit to consider moving towards developing some form of an understandable and balanced legal framework. This may involve beginning with a regulatory sandbox approach to allow experimental testing of crypto solutions in a space overseen by government. By outlining the legal purposes; the conditions for obtaining a license for crypto service providers; by implementing some basic consumer protections and anti-money laundering considerations would certainly make the space position more legitimate and facilitate investment. Ethiopia can leverage the experiences of other African countries, like Nigeria or Kenya, which has more viable regulatory frameworks short of endorsing or banning the use of crypto in any form.Besides, the government and the private sector need to promote innovation by creating an enabling environment for fintech and blockchain startups. This can include funding opportunities, tax incentives, and incubation hubs. Supporting pilot projects that utilize blockchain in areas like land registration, education, or healthcare can also be employed to highlight the broader utility of this technology beyond monetary uses.

Last but certainly not least, public trust must be facilitated through protection and transparency. Users should be confident when they use crypto platforms, and therefore, good information on risks, terms and charges must be made available. It is also important for consumers to have accessible complaint processes as well as to share information across different platforms regarding common cryptocurrency scams as this will protect consumers, particularly in a learning market about the technology.

In summary, the successful launch of cryptocurrency in Ethiopia depends on bridging awareness gaps, infrastructure limitations and regulatory uncertainty. It is important that as Ethiopia strives to achieve some balance, while remaining inclusive, that it can begin to harness the potential that exists in digital finance without the risks, and empower citizens, while also establishing itself as a forward-thinking nation in a digital world.

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APPENDIX

ANNEX I: SURVEY QUESTIONNAIRE ADDIS ABABA UNIVERSITY, COBE DEPARTMENT OF ACCOUNTING AND FINANCE

Dear respondent, this study is intended for partial fulfillment for an MA degree in Accounting and Finance at Addis Ababa University. The research focuses on challenges and opportunities of adopting cryptocurrency in Ethiopia, with specific focus in Addis Ababa. I assure you that your responses to this survey will be held confidential and all information will be used for this academic purpose only. I would like to thank you for your kind cooperation in advance. Please note that you are not required to write your name

ZEKARIAS KASAHUN

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0923122597

.**Instructions:** Please indicate your level of agreement with the following statements by selecting the appropriate number.

PART I: DEMOGRAPHIC INFORMATION

1Age:in years

I. Below 25 ☐ II. 26-36 ☐ III. 37-47 ☐ IV. Above 48 ☐

2, Gender: [ ] Male [ ] Female [ ] Other

3, Occupation:

- ☐ Student
- ☐ Banker

- ☐ Business Owner
- ☐ Government Employee
- ☐ Other (Specify: _____)

4, Level of Education:

- ☐ High School
- ☐ Diploma
- ☐ Bachelor's Degree
- ☐ Master's Degree or higher

5 Which category best describes you?

- ☐ General public
- ☐ Banking and financial institution Employee
- ☐ Regulatory Body/Policymaker
- ☐ Technology Expert /developer
- ☐ Cryptocurrency user/trader

PART II: QUANTITATIVE SURVEY (Likert Scale: 1-5)

1 = Strongly Disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly Agree

1. Perceived Knowledge (PK)	**1=Strongly disagree**	**2= Disagree**	**3= Neutral**	**4= agree**	**5= Strongly agree**
I am aware of how cryptocurrency transactions work.					
I can explain cryptocurrency concepts to others.					
I am familiar with different types of cryptocurrencies (e.g., Bitcoin, Ethereum).					
I understand the risks and benefits of using cryptocurrency.					

2. Performance Expectancy (PE)	**1=Strongly disagree**	**2= Disagree**	**3= Neutral**	**4= agree**	**5= Strongly disagree**
Cryptocurrency transactions are faster than traditional banking services.					
Cryptocurrency can reduce transaction costs.					
Cryptocurrency provides better financial accessibility than banks. **The use of cryptocurrency will lead to financial innovation in Ethiopia.**					

3. Social Influence (SI)	**1=Strongly agree**	**2= Disagree**	**3= Neutral**	**4= agree**	**5= Strongly agree**
My friends, family, or colleagues encourage me to use cryptocurrency.					
Influential figures (e.g., celebrities, business leaders) impact my perception of cryptocurrency.					
Cryptocurrency adoption is growing among businesses in Ethiopia.					
The media (TV, social media, news) has influenced my views on cryptocurrency.					

4. Price Value (PV)	1=Strongly disagree	2= Agree	3= Neutral	4= agree	5= Strongly agree
Cryptocurrency is a cost-effective alternative to traditional banking.					
The potential financial gains from investing in cryptocurrency are attractive. Cryptocurrency can serve as a reliable store of value.					

5. Effort Expectancy (EE)	1=Strongly disagree	2= Disagree	3= Neutral	4= agree	5= Strongly disagree
Learning to use cryptocurrency is easy for me.					
Cryptocurrency platforms (wallets, exchanges) are user-friendly.					
The process of buying and selling cryptocurrency is simple.					
Understanding cryptocurrency does not require advanced technical knowledge.					

6.Facilitating Conditions (FC)	1=Strongly disagree	2= Disagree	3= Neutral	4= agree	5= Strongly disagree
1. Ethiopia has the necessary technology infrastructure (internet, digital access) to support cryptocurrency.					
The Ethiopian government should create policies that facilitate cryptocurrency adoption.					
Financial institutions should integrate cryptocurrency into their services.					
Access to educational resources will make cryptocurrency adoption easier.					

7. Perceived Risk (PR)	1=Strongly disagree	2= Disagree	3= Neutral	4= agree	5= Strongly agree
I am concerned about the security of cryptocurrency transactions.					
I fear losing money due to cryptocurrency price volatility.					
The lack of government regulation increases the risk of using cryptocurrency.					
I worry that cryptocurrency wallets and exchanges can be hacked.					

Cryptocurrency Adoption	**1=Strongly disagree**	**2= Disagree**	**3= Neutral**	**4= agree**	**5= Strongly agree**
I am willing to use cryptocurrency for financial transactions.					
I believe cryptocurrency adoption will increase in Ethiopia.					
The adoption of cryptocurrency will positively impact Ethiopia's financial sector.					
I would recommend cryptocurrency to others for financial transactions.					

Thank you for your time!

PART III: QUALITATIVE

Interview questionnaire

1. In your opinion, what is the biggest challenge in adopting cryptocurrency in Ethiopia?
2. How do you think cryptocurrency can benefit the Ethiopian economy?
3. What challenges do you personally face in using or understanding cryptocurrency?
4. Do you think the national infrastructures such as telecom, bank and others are capable in hosting an internet based currency? Why?
5. Which characters of Cryptocurrency are attractive and which are repulsive or bad in terms of its benefit to the Ethiopian economy?